



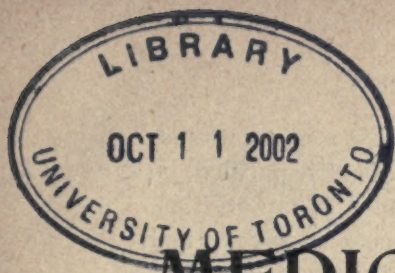
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CANADA MEDICAL RECORD

JANUARY, 1901

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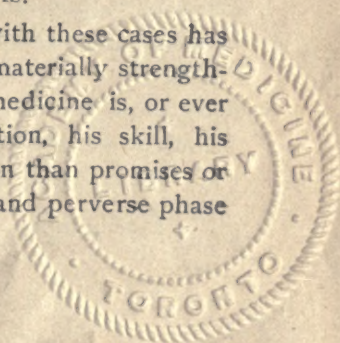
By A. D. Stevens, M.D., Dunham, Quebec.

THE DELUGE.

It is not intended by the above heading to frighten your readers into the belief that a flood of the old-time variety is upon us. The danger of such an infliction, if any, lies more in the number and quality of the drugs and new remedies the laboratory and other sources are thrusting upon a thankless world. Is it because we are all such sinners in the present age that history is repeating itself, or is it because the profession is ungrateful for blessings already received? No doubt some of them are here in the interests of the people of the healing art—that they are with us for future service and have come to stay, but who will venture to sift the wheat from the chaff; who possesses the courage to separate the sheep from the goats? Let us then rest and be thankful, saints that we all are you know, let us be assured of time and place to assimilate the mass. The commercial end of the arrangement may be safely trusted to take care of itself and the times and seasons are favorable to repose.

TUBERCULAR MENINGITIS.

No one who has had much to do with these cases has had his faith in the efficacy of medicine materially strengthened, or ever realized the dream that medicine is, or ever will be, an exact science. His reputation, his skill, his veracity, if based on no better foundation than promises or expectations of success in this stubborn and perverse phase



of tuberculosis, would be in danger of being put in question. However true this may be, the bad results that pursued me for so long in this business, if I am certain of my position, seem to have brightened up a little—appear to have turned in my favor at last. Formerly, that is previous to my treatment of the two little sufferers I am about to describe, the iodide of potassium (sometimes with a little simple bitter, and often without) formed the basis of my practice, but with terminations I have no special pride in relating. These two, although not occurring at the same time or in the same year, in fact, were treated precisely alike, and, to be fair, so far as I know, had no hereditary tendencies to consumption or evinced any symptoms that would point to deposits of tubercular matter elsewhere.

I had seen, heard or read somewhere that a cap or pouch, if you will excuse the word, made sufficiently large to cover the scalp and soaked or saturated with glycerine containing a generous dash of the tincture of iodine, promised advantages that were not to be despised or flippantly rejected. The cap was duly made, freely soaked or filled with the glycerine and iodine, applied to the scalp, and, with occasional renewals, kept in position for days. Internally the iodide of potassium was not, of course, left in the background, and, under it all, the children, not long after, began to mend, and *continued* to mend until relieved.

So far as the animal functions are concerned at least, the last time that I saw the children both had the appearance of perfect health ; at the same time a close observer would, I think, be able to detect in the expression of their faces and eyes the fact that at some time or other there had been something wrong with their little brains.

All things considered, then, there is nothing to rule the treatment they received either impossible or impractical, but the question naturally arises : are their mental faculties liable to be weakened if they live to adult life, as they now bid fair to do? May we expect a return of the complaint in some other form or place?

INGUINAL HERNIA.

I remember, on a certain occasion, passing a whole

night with a woman suffering from an accident that I am led to believe is, more or less, of rare occurrence in the female—an unruly and persistent inguinal hernia. It was the first descent of the intestine, and tightly held in the grasp of the parts. Taxis, cold and other attentions were faithfully put in evidence, but, all the same, the rupture held full sway. The situation remained so obstinate and full of mischief that the only way out of it appeared to be through the knife. Now, I do not pretend to be much of a philosopher or a genius in expedients, but I had the faith to believe that the law of gravitation would, if used, prove as immutable and salutary in the premises as everywhere else—that it would hold as good in the case of an erring intestine as it did in the rest of the works of nature, and, as I am a humble believer in the benign influences of nature and nature's laws, the principle was seized upon and took root. A fresh looking woman of the soil, who had been showing great interest and sympathy in both the doctor and patient, was appealed to for help and yielded. Without much difficulty we raised the foot of the bed the patient was lying upon to an angle approaching ninety degrees, and firmly secured the supports.

In the course of half an hour or so the constricted portion of the bowel returned, bag and baggage, to its old home in the abdominal cavity in nearly as good condition as it left it hours before. The laws of gravitation, too, had once more, of a certainty, proved that circumstances do not change their habits or lessen their power and usefulness. There was no mistaking it; our troubles were well over, and it only remains to add that local and gastric attentions and a properly adjusted truss finished the business.

On three similar occasions of hernia since (all male) I have had the satisfaction of seeing this same law of gravitation prove itself as effective a factor or agent—an inflexible entity and faithful servant, but, in these instances, not much time or thought were wasted in taxis or other operations sometimes performed. The lower ends of the beds were elevated, as before, without ceremony, cold used each time, and, in due season, every one took its place in the orthodox way, the usual gurgle not excepted.

CLINICAL LECTURE.

DELIVERED AT THE MONTREAL GENERAL HOSPITAL,
5TH NOVEMBER, 1900.

By FRANCIS WAYLAND CAMPBELL, M.A., M.D., C.M., L.R.C.P.L.,
D.C.L.

Dean of and Professor of Medicine, Faculty of Medicine, University of Bishop's
College, Montreal.

INFANTILE CONVULSIONS.

I have had considerable experience during the last thirty years with medical students, and I am inclined to believe that he does not always have impressed on his mind the importance of convulsive seizures in infancy and childhood. Perhaps there is nothing that will go farther toward establishing the reputation of a physician than being able to show that you are master of the situation—that you thoroughly understand the principles of the treatment of convulsions. The truth is that the reputation of the physician is more likely to be established by the successful management of what may be called minor diseases than by severe and complicated diseases. The fact is, the young physician rarely gets a chance in the management of grave disease. As convulsions occur suddenly, and generally without warning, the family physician impossible to be found, the young doctor, sitting in his office waiting like Micawber for something to turn up, finds himself called to fill an emergency. He will generally find the mother or the nurse, and possibly both, have lost their head. His arrival on the scene will be hailed with expressions of satisfaction, and his management of the case will show his ability or otherwise. If he knows his work, he will then and there lay the foundation of future success.

Convulsions may occur within a few days of birth, and then are due to some injury of the brain, occurring during the labor. They may be general or involve only half the body. Two weeks from birth they usually cease. From that till six months infants are usually free from them, but onwards till the seventh year they are not uncommon. The onset of structural disease of the brain or its membranes may be attended with general convulsions. With this exception the etiology of infantile convulsions is obscure. At birth the de-

velopment of the nervous system is not complete, and its functions are not fully organized till a later date. The lower centres are organized earlier than the higher, and it is supposed that, wanting effectual inhibitory control from above, they are more prone to excessive action in response to peripheral stimuli. Very often the child is rickety, and there is a neurotic family history. It may be impossible to discover the cause of infantile convulsions. Very often they are toxic, and such cases are met with at the onset of scarlatina and measles. In my experience they are most frequently met with as the result of peripheral irritation caused by indigestible food, often from dentition. Occasionally, the cause is worms, or otitis, the result of scarlatina. There is a condition, which you will often be called upon to treat, which among the public is designated "inward fits" or silent convulsions, the latter somewhat a misnomer, as convulsion means movement. In these cases the infant lies as if asleep, but rolls his eyes, groans, the muscles of the face are drawn, and very often there is a bluish ring around the mouth. Such cases are always the result of over-feeding, and requires prompt attention to the child's diet. The immediate attack should be treated by one to three drops, in water, of compound spirits of ether or aromatic spirits of ammonia, every half hour, for a half day, when most likely there will be no recurrence.

When the true convulsion comes on it is generally unexpectedly. The muscles of the body become stiff and immovable, the muscles of the face twitch, the lips are drawn in varying directions, the eyes prominent and fixed, the pupils are contracted, the face is generally congested, the respiration labored, and the number less than normal; the pulse is rapid and small, the hands clenched, with thumb turned in. During a seizure, urine and feces are often passed involuntarily. The duration of the convulsion is variable, but I have seldom seen them last more than two or three minutes. To those immediately related to the little sufferer, even such a brief period seems ten times longer than it usually is, and, on arriving on the scene, as a rule you will, in consequence of this, be given an exaggerated account of the duration. The

child may, however, it must be remembered, pass from one convulsion into another with a very brief interval. These cases, I need hardly say, are very serious, for the child may become comatose, and death ensue in a few hours. Still, even these severe cases do sometimes recover, so never despair. Set about your duty hopefully, and success may even in apparently desperate cases be the result. After the convulsion has passed off, the face gradually assumes its normal appearance, and the child goes into a placid slumber, with a gentle perspiration covering its body. It is important to remember that often only a part of the body is affected. For instance, one side of the body or the arms, or only the face, may show convulsive movement. As regards the treatment, much can be done, and I shall give you my experience instead of that which you can find in any treatise on infantile diseases. As in your early professional life your practice will mainly be among the poor, if you arrive on the scene when the child is in the throes of the convulsion, as I hope you will, whether it be the first or second seizure, you will find the cradle or bed surrounded by every old woman of the neighborhood. Loose no time in ordering these officious women to "get out," thereby allowing free access of air to the little patient. Then give a chloroform inhalation, with a view of cutting short the fit. Chloroform is, I might say, almost, if not perfectly safe, as an inhalation in children. When the convulsion has ceased place the child in a bath, temp. 92° to 94° , sponge the head with cold water; occasionally, when I think the case requires stimulation, mustard is added, 1 ounce of mustard to each gallon of water, at a temp of 98° to 106° . To a child of a year and upwards I do not hesitate to give ten grains of calomel. This will give as a rule, not more than four or five copious motions. If, however, I think it desirable to have immediate action, I give an enema of warm soap suds, to which is added a small quantity of olive oil warmed. I then place the patient on a mixture of which the following is a sample, for a child one year old :
R Pot. Bromid, ʒiiss ; Chloral Hydrate, gr. viii; Tinct. Aconite (F) gtts. xvi; Syr. Simp. ʒi , Aq. ad ʒiv . Sig. ʒi —every 4 hours. Sometimes if the convulsion is repeated in a child old enough to be fed from the family table, I often find that it has had

what is called mashed potatoes, which in my experience often contain big lumps. In such cases it is advisable to empty the stomach at once, and I find in dried alum an excellent emetic, a half to one teaspoonful dissolved in water. If the convulsion be due to dentition, and I find the mucus membrane of the gum stretched by a tooth near the surface, I do not hesitate to use the gum lancet and cut right down to the tooth. In cases which occur after the age of a year the child should be put on tonics, of which the Elixir of Calisaya Bark or the double Syrup of Iodide of Iron and Quinine (Campbell's) are good examples. It should live largely in the open air, and during summer should be taken to the seaside, and be sponged every morning with hot sea water. If this cannot be done, then it should have the same kind of bath at home. Sea salt can be purchased at any chemists. Children who have had convulsions in early life should not be sent to school too soon. If they indicate precocity their education must be carefully watched. If it is pressed, brain trouble will often supervene, terminating in death, or in a pseudo-epilepsy, which with advancing years may develop into true epilepsy the horrors of which can only be known to those who have one in their own family.

Since Dr. Campbell insisted upon having children admitted to his Clinic, instead of being shunted off to the Children's Clinic, a department not officially recognized by the Hospital authorities, there has been a very large influx of the little ones. Diarrhœa has been the complaint of the majority, but a few cases of marked constipation have been met with. Strange to say, this condition seems to cause little concern to the majority of mothers. Dr. Campbell says it is met with mostly among bottle fed children, whose diet lacks sufficient fatty elements, but it is met with even when the child is nursed by a healthy mother. Mothers are too apt to employ castor oil, which only gives temporary relief. Drugs are as a rule best avoided. If a breast-fed child, the milk should be examined. If there is excess of proteids, then the mother ought to take more active exercise, and this element in diet should be diminished. If the constipation is in a baby fed with the bottle, then, if deficient in fats, this

should be brought up to 4 per cent. at least. This may be done by adding cream to the food. An excellent method of attaining this end is to give to a child three months old a drachm of fresh sweet butter; a little more to older children. For a couple of weeks this should be given three times a day; then on alternate days; then once a week. The result is generally very satisfactory. It is highly recommended by German physicians. Injections and suppositions are like medicine, objectionable, as their use soon induces a habit. The bowel, accustomed to act only on rectal irritation, very soon learns to await it, and fails to yield to the milder irritation caused by the presence of fecal matter in the lower colon and rectum. When the child is older—say from a year to two years—gruel may be tried, at the same time using gentle massage of the bowel, and subsequently rubbing in either butter or the best salad oil.

Pediatric specialists, Dr. Campbell says, are some of them preaching the doctrine that "teething produces nothing but teeth," which he from long experience believes to be nonsensical. It is true that some children pass through the teething period with but little, if any, discomfort. This, he believes, was due to two reasons: 1st, the character of the gingival tissue, which in some is dense and unyielding; 2nd, the nervous system, although generally exalted in children, but more so in some than in others. Any one—whose practice has been a family one—knows that teething is generally painful. From the moment that the growing teeth begin to form, or very soon after, they press on the gums and give rise to no end of symptoms of nervous irritation. Dr. Campbell said he had seen all these symptoms disappear, on the gum over the pressing tooth being incised with a gum lancet, an instrument which he believed was not used often enough. This fact has been repeatedly exemplified at this Clinic. All know there are certain pains which are relieved by pressure, and pain in the gums of a child would seem to be of this kind. They seize hold of everything hard and place it in the mouth and chew it. This desire of nature is utilized by what is called "a chewing ring." It is made of hard or soft rubber—the former is best, but better still is one made of

celluloid. It has the advantage of being easily cleaned, and in my experience infants like it best. It is good practice to bathe the gums either with plain warm water or a little bromide of potassium added to it. The bathing is best done by the finger dipped into the water and then rubbed over the congested gums. Teething children are unquestionably thirsty, and their thirst is not relieved by their liquid food; he constantly gives a teaspoonful or two of ordinary cold water several times daily, and is satisfied it does good.

Selected Articles.

THE TEMPERATURE OF BATHS IN TYPHOID FEVER.

The treatment of baths in typhoid fever should be regulated so as to obviate the dread which the patient experiences. To the family as well as the nurse and the physician it is often heart-rending to see the piteous expression of the patient when his bath is prepared. If the patient is only semi-conscious his terrible shrieks and struggles are not only pitiful, but are often likely to cause interference from the side of the family. Besides, the excitement accompanying or preceding the bath nearly altogether counteracts what good effect is aimed at, by the shock of the cold bath on the nervous system and the temperature.

When resorting to the tub bath in typhoid fever, it should be the aim to make the bath seem a pleasant remedy to the patient. This is best achieved by never placing the patient into water lower than ninety-eight degrees. This temperature alone is sufficient to reduce the fever temperature, especially if at the same time colder water is poured upon the patient's head. The reduction of temperature of the bath can easily be accomplished by placing ice into the water so that at the end of thirty minutes, when the patient is removed, the water is as low as eighty-five degrees. It is questionable whether a lower temperature is of any benefit whatsoever. If we take into consideration the difference in the looks of patients treated with a bath varying from ninety-eight degrees to eighty-five degrees, and, on the

other hand, from eighty-five degrees to seventy-five degrees, we easily arrive at a conclusion in favor of the former. The patient has not the anxious look, the agonized expression, the blue lips or the constant shiver which we are wont to see in the latter cases. The reduction of the fever temperature is achieved in both cases alike, perhaps a little faster in the colder bath, but certainly not with the same feeling of comfort and—if we may use the expression—of “well-being.” The warmer bath seems also less harsh, and will, in private cases, not meet with such frequent opposition as will the colder one.

As regards the management of the bath, it is well to bear in mind a few particulars adding to the safety of the patient when lifted in and out of the tub, and to his comfort while in the tub. In hospitals and in private practice, the physicians and attendants, who use the greatest possible care in turning a patient from side to side or in lifting up his head for the administration of food, will frequently not hesitate in picking the patient up by his shoulders and legs to place him into the bath. This is dangerous practice, not to speak at all of its unæsthetic aspect. By raising a patient thus unceremoniously his abdomen is not well taken care of. The voluntary or involuntary contraction of the abdominal muscles during such a proceeding press upon the distended intestines and disturb the rest in which even the pathological distention has placed them; at least, irritation of the diseased organ, if not breaking of an ulcerated surface with consequent bleeding, is likely to follow, and the supposed remedy to prove an aggravating factor. A good way to lift the patient into the tub is to place him upon a large sheet in the centre of which six or eight large buttonhole-like perforations have been made. He is placed in the bath on this sheet and it is left under him. When raised out of the bath he is in the net of the sheet, the water running out of the centre holes. The patient can be moved this way at an indefinitely greater comfort and safety to himself and also to the attendants. To increase the comfort and safety of the patient while in the bath he should receive a moderate dose of brandy at the beginning of the bath, and should be gently rubbed with some coarse material, a rough sponge or a coarse drawn linen towel. This rubbing of his back, chest and limbs must be kept up while the patient is submerged. His abdomen should be carefully avoided. After his removal from the bath he receives a warm glass of milk with lime water, and is covered with light woolen blankets. It is not advisable to give any brandy, as the cooling effect of the bath is counteracted to a large extent by stimulants.

A SIMPLE AND EFFECTIVE TREATMENT FOR DYSPEPSIA.

By J. M. MCLEOD, M.D.,

Professor of Surgery in the Lincoln Medical College, Surgeon to Lincoln City Hospital,
Lincoln, Neb.

The first broad and universally conceded principle applicable to maldigestion is that a constant and essential feature of the condition is a lack of ability on the part of the digestive organs to properly perform their functions; this fact is equally true of acute dyspepsia, chronic gastric catarrh and the various forms of so-called amylaceous or starchy dyspepsia. In most cases the causative element is a defective and deficient secretion of the digestive ferments; this, in turn, gives rise to a whole train of symptoms, which we recognize clinically as dyspepsia. This lack of digestive ability is an unmistakable and imperative indication for artificial aid—to supply those working principles by which foodstuffs are converted into the end proteids of digestion. This fact, which may be termed an axiom, stands out prominently in every scientific treatise upon dyspepsia. The great question, however, is: how can artificial digestion be best accomplished? That pepsin, pancreatin and the various diastasic ferments fail in this respect will be acknowledged by everyone of experience; their field of usefulness is at best an exceedingly limited one, and may be characterized as unreliable. It is interesting to note, in this connection, the recent results obtained by Prof. Reynolds Green, the well-known English physiological chemist, who found that pepsin does not, in itself, effect the digestion of albuminoids into peptones, but that it is merely an initiatory step, which is completed by the pancreatic ferments in the intestines. Other well-known facts concerning pepsin and pancreatin throw additional light on the subject of why these are clinically ineffective. For instance, pepsin requires a strongly-acid medium, else it is inert. Pancreatin is likewise inert in an alkaline medium. Furthermore, neither ferment is strong in its digestive power. As is well known, the gastric contents in the various forms of dyspepsia are sometimes acid, sometimes alkaline. In other words, the pathological conditions in dyspepsia call for the exercise of properties which pepsin, pancreatin and the diastasic ferments do not possess. Another reason for the limited value of the above ferments is that the subjective symptoms of dyspepsia imperatively demand the administration of palliative remedies for relief, and many of these remedies destroy the physiological activity of pepsin, pancreatin, etc. An ideal ferment must possess the properties of digesting all classes of foodstuff as represent

ed in an ordinary diet, and, most important, must exercise its activity absolutely independent of chemical conditions existing in the stomach. Furthermore, it is necessary that such a digestive ferment preserve its power when administered conjunctively with the various antiseptics, astringents, bitter tonics, etc., without the aid of which there can be no successful treatment of dyspepsia. Most interesting in this connection is the published report of Professor Chittenden, of Yale, regarding vegetable ferments, showing that "caroid," the soluble digestive ferment derived from *Carica papaya*, possesses the following characteristics:—

1. It is a true soluble digestive ferment of vegetable origin.

2. It has marked proteolytic action in acid, alkaline and neutral solutions and in the presence of many chemicals, antiseptics and therapeutic agents.

3. It has a peculiar softening and disintegrating action on proteids, and its general proteolytic action is that of a genuine digestive ferment, similar to the ferments of animal origin.

4. It has amylolytic, or starch-dissolving, power.

5. It has a marked rennet-like action upon milk and a pronounced digestive action upon milk casein.

6. It exerts its peculiar digestive power at a wide range of temperatures.

7. The ordinary conditions of health and disease in the stomach and intestines are not likely to check its action, while certain possible conditions may accelerate it.

Here we have an agent that in action differs widely from the digestive ferments of animal origin, and one that, on theoretical grounds, perfectly fulfills the requirements of artificial digestion. I have been convinced by an extensive clinical experience, embracing several hundred cases, not only that it also practically fulfills these requirements, but that caroid is by far the most valuable single agent we have for the treatment of dyspepsia. Particularly gratifying is the fact that the symptoms of the disorder will yield to the administration of appropriate remedies when used in conjunction with caroid, which, without this latter agent, partially or completely fail. Although, previous to the use of this digestive, I had resorted to the examination of the stomach contents in almost every case as a routine practice, in order to determine in what elements and how far the digestive powers of the stomach were impaired, I now reserve this procedure for certain rare cases in which there are special reasons for knowing the exact chemical and other conditions existing in the stomach. The results obtained are extremely satisfac-

tory, and the saving of a great amount of time is, in itself, a strong commendation.

In regard to diet, the character of the patient should be first considered, and, if a restricted diet will be observed, it should be required. On the other hand, if satisfied that a strict diet will not be observed, it is better to prescribe only such general rules as the patient will probably follow, such as regular meals, proper mastication, the avoidance of all coarse, overstimulating and improperly-cooked foods, and especially the avoidance of those foods to which troublesome symptoms can be ascribed. It is seldom necessary to bar tea or coffee unless their use has been excessive.

The most common class of cases—those ordinarily designated chronic dyspepsia or chronic gastric catarrh—are, according to the usual methods of treatment, difficult to manage even upon a semblance of routine plan. These patients—whose complaints are so well known that it is almost superfluous to mention them—present symptoms soon after eating. There is pain and a sensation of fullness in the region of the stomach, with evidences of slow digestion and acid eructations. Flatulence, constipation, capricious appetite, nausea and vomiting are present with varying degrees of frequency. Except when special symptoms are particularly accentuated and call for the administration of special correctives, these cases may be satisfactorily treated by either of the following combinations now offered in the form of tablets:—

- i. Caroid, gr. j.
Charcoal, gr. iss.
Boric acid, gr. iss.
Sacch. lac.,
Pulv. arom., q. s.
2. Caroid, gr. j.
Soda bicarb., gr. iij.
Menth. pip.,
Sacch., lac., q. s.

If fermentation and excessive acidity are especially pronounced, caroid may be judiciously combined with creosote, in 3-grain doses, thymol, bismuth or larger doses of sodium bicarbonate, according to individual requirements. In atonic dyspepsia, characterized by loss of appetite and the inability to digest food, a combination of caroid with the usually-employed bitter tonics—*nux vomica*, *quassia*, *gentian*, etc.—affords surprisingly quick relief, and in most cases permanent cure.

It is not my object, in presenting this paper, to offer a

systematic treatise upon the treatment of dyspepsia, but merely to emphasize the fact that this condition can, according to the above general principles, be satisfactorily treated by the average general practitioner, who has neither the time nor the laboratory training and equipment to study scientifically the exact chemical and pathological conditions existing in the stomach. As above mentioned, it is a simple and effective method which has proved invariably satisfactory after three years' extensive employment.—*Med. and Surg.*

THE LIGHT TREATMENT AT THE LONDON HOSPITAL.

By J. H. SEQUEIRA, M.D., M.R.C.P., of London, England.

Dermatological Assistant and Medical Officer in Charge of the Light Department of the London Hospital.

On the 29th of May, 1900, a department was opened at the London Hospital for the treatment, by light, of lupus and other superficial cutaneous diseases which depend upon bacterial infection. The method employed is that devised by Professor Finsen, of Copenhagen, and first described by him in 1897. For over three years it has been carried out in a special institution in the Danish capital with conspicuous success, patients being attracted from all parts of northern Europe and even from England. The royal family of Denmark have taken a very great interest in the Finsen Light Institute, and the apparatus now in use at the London Hospital is the gift of H.R.H. the Princess of Wales.

The principles upon which the treatment is based are the following:

1. Light is a germicide. This fact was first established in 1878 by the classical researches of Downes and Blunt, and it has since been the subject of investigation by Duclaux, Arloing and many other workers. It has been shown that the bactericidal action of light is due to the violet and ultra-violet rays—the so-called “chemical” rays of the spectrum. Pate cultures of many micro-organisms are killed if exposed to their action for a sufficient length of time. But it is obvious that, if the chemical rays of sunlight were strong enough to destroy the microbes in the skin under ordinary circumstances, lupus and those diseases which depend upon bacterial infection would disappear during the summer months. Dr. Finsen, however, found that the bactericidal action of the

chemical rays is enormously increased if the light is concentrated by means of lenses, and especially by lenses made of rock crystal, which allow the ultra violet rays, which are in part absorbed by ordinary glass, to pass through. In his apparatus the red rays of the solar spectrum are absorbed by making the light pass through a blue medium, while the ultra-red or purely calorific rays are absorbed by a layer of water. Some of the earlier workers in this field endeavored to treat lupus by means of "burning glasses," and by mirrors, but it will be easily seen that, as they relied chiefly upon the heat rays, such a concentration, if carried out for a sufficient length of time, would inevitably cause combustion of the tissues.

The ordinary artificial lights, including the incandescent electric light, are useless as bactericidal agents, as they contain very few chemical rays. The electric arc lamp, on the other hand, gives a light which is rich in these rays, and, if the light be of great intensity, the germicide action is greater than that of the sun itself. The electric light is, of course, expensive, but if cases of lupus are to be treated by light in northern latitudes, it is impossible to depend upon the sun for the greater part of the year.

2. The chemical rays of light have an irritant effect upon the skin. The commonest example of this is the form of dermatitis, known as erythema solare, some of the best instances of which are seen in the tourists on the glaciers, and in the explorers of the arctic regions. A similar inflammation is met with in the workmen employed in the blast furnaces which are worked by electricity. As Maklakow has shown, the inflammation set up by the very strong electric light which is developed in these furnaces is much more intense than the similar affection produced by strong sunlight. Professor Widmark, of Stockholm, has proved that in both instances the dermatitis is due to the chemical rays, and is independent of the heat rays; in other words, that it is not a burn. The effects produced by the chemical rays and the heat rays differ in very important particulars. The effects of a burn are immediate, whereas those of the chemical rays of light are only manifested after the lapse of some hours. As a rule, the inflammation does not reach its maximum until after from twelve to twenty-four hours. It has long been recognized by dermatologists that cases of lupus often show remarkable improvement after attacks of superficial inflammation, such as erysipelas. This is probably due in part to the effects of the local inflammation upon the bacteria in the affected tissue, but the influence of the inflammatory process upon the lupus tissue itself cannot be left out of consideration.

3. Light has a certain penetrative power. This is, of course, in no way comparable with that of the Röntgen rays, but it is sufficient to blacken chloride of silver placed in sealed tubes under the skin of animals. Professor Finsen has further shown that this power of penetration is much greater when the skin is anæmic. He demonstrates this by placing a piece of sensitive photographic paper behind the lobule of the ear, and then exposing the outer surface of the auricle to the light. In its normal condition the paper is blackened at the end of about five minutes. If now the experiment is tried with the ear rendered exsanguine by compressing it between two pieces of glass, the same effect is produced in twenty seconds.

A consideration of these facts shows that, to carry out the treatment of lupus and similar diseases by light, a lens or system of lenses is first required to concentrate the rays. These lenses are preferably made of rock crystal, so that the whole of the ultra-violet rays may be brought to a focus. Secondly, the red and ultra-red rays must be absorbed by passing the light through suitable media. Lastly, there must be an apparatus to compress the skin and render it anæmic.

The installation at the London Hospital has been carried out upon the lines suggested by Dr. Stephen Mackenzie in his report upon the Finsen Light Institute at Copenhagen. Two sets of apparatus are in use: one for sunlight and one for the electric light.

The sun's rays are concentrated by means of a hollow planoconvex lens ten inches in diameter. The cavity of the lens is filled with an ammoniacal solution of sulphate of copper. The lens is attached to a strong metal support in the form of a fork, in such a manner that it may be turned about a horizontal and also about a vertical axis. The fork is attached to a rod, which can be raised and lowered at will. The stand is placed upon a table about three feet high, and the patient lying upon a couch or sitting in a light rocking-chair is put in such a position that the area of skin to be treated is at the focus of the lens. The light rocking-chairs are used, as they can be placed at different angles and fixed by wooden blocks. As it is found in practice that the copper sulphate solution does not entirely absorb the heat rays, the compression apparatus is made to serve also as a cooling medium. It consists of a flat cell, made of two pieces of glass or rock crystal fixed in a metal ring. Attached to the margins of the ring are four projections, to which elastic bands can be fastened. By means of these pressure is brought to bear upon the part under treatment. In certain

situations it is found to be more convenient to dispense with the elastic bands, and to press the glass upon the skin with the fingers. In any case, the pressure-glass must be held by a nurse, as it is essential that the light should fall perpendicular upon its upper surface, and that the area under treatment should be in focus. Two metal tubes are fitted into the pressure-glass, and they are connected by India rubber tubing with a water-supply, and a constant stream of cold water is passed through the apparatus and keeps the skin cool.

To carry out this treatment a portion of the hospital garden has been set apart, and during working hours this is enclosed by a canvas screen.

Apart from considerations of expense, the sunlight treatment has the great advantage of keeping the patients out in the sun during the *séance*, and this has an important influence upon the general health.

As has already been indicated, a very powerful arc light is required, and that in the installation at the London Hospital is of over 30,000 candle-power. To obtain a light of such intensity it was necessary to introduce a transformer, as the current supplied to the hospital from the public mains has a voltage of 480 and an amperage of 10. By means of the transformer a current of from 50 to 80 amperes is supplied, and this produces a light of requisite strength. In practice the lamp is usually worked at from 50 to 65 amperes. The lamp is suspended from the roof of a large room, which has been cut off from one of the temporary wards by a partition. As will be seen from the accompanying illustration, the lamp itself is surrounded by a metal screen, which serves as a shade, and at the same time excludes draughts. Attached to a strong metal ring at a lower level are four telescopes. Each is made of two parts, one sliding within the other. The lenses of the telescopes are made of rock crystal for the reasons mentioned above. The rays of the electric light are divergent, and the lenses of the upper piece of the telescope render these diverging rays parallel. The second piece brings these parallel rays to a focus about six inches below the lowest lens. The lower piece of the telescope is filled with distilled water to absorb the heat rays, and is kept cool by a water-jacket, very similar to that of the Maxim gun. Through the jacket a stream of ordinary tap-water flows continuously, and this is conducted by an India rubber tube to the pressure-glass, which is used in precisely the same manner as in the treatment by sunlight. The patient is placed upon a couch or rocking-chair and focused to the light. The area of skin to be treated, after being cleansed with an anti-septic solution, is marked with a dermatographic pencil.

From one to three square centimeters are exposed daily for an hour to the action of the light. Then another area is treated, and this is continued until the whole of the affected part has been submitted to the rays. If at this point the existence of suspicious spots is noticed, these are again treated.

At the present time there is one lamp, and only four patients can be treated at each *séance*. The demands upon the department have already become so great that two more lamps will probably soon be erected. Each patient is attended throughout the *séance* by a nurse, whose duty it is to regulate the pressure apparatus. The nurses are under the charge of sisters who have been specially trained for the work in Copenhagen. They wear overalls, and their eyes are protected by smoked glasses. Care has to be taken in treating lupus of the face that the patient's eyes are similarly protected; and if the disease is near the orbit, the eyes are covered with lint soaked in water, and over this a layer of brown paper is placed.

At the end of each *séance* there is an interval of a quarter of an hour, during which the dressings are applied, and the nurses cleanse the pressure glasses with carbolic lotion and spirit, and wash their hands and forearms in an antiseptic solution.

The local effect of the treatment is the induction of an inflammation of moderate intensity. The more recent and less pigmented cases react the more strongly. Redness, swelling, and, in some cases, slight vesication are present in from twelve to twenty-four hours after the *séance*. Under the influence of a simple soothing dressing this soon subsides, and the area becomes flatter, paler and smoother. The treatment is painless; there is no pyrexia and practically no scarring. The advantages over treatment by scraping, burning by acids, etc., etc., are obvious. Ulcerating surfaces have to be treated upon general principles until the pressure-glass can be borne. It is, unfortunately, impossible to submit lupus of the mucous membranes to the action of the concentrated chemical rays in this manner. For these, however, the X-rays are employed.

It is as yet too early to say anything about results in the cases which are under treatment at the London Hospital, as the department has been open for so short a time. Cases of from four months' to sixty years' duration are under treatment, and, provisionally, it may be remarked that the results so far are in every way comparable with those seen by the writer at the Finsen Light Institute in Copenhagen. It may be worth mentioning here that some of the Danish cases have been free from recurrence for a period of two years.

The light treatment has been tried in cases of lupus erythematosus, but the results are not nearly so striking as in lupus vulgaris. Dr. Finsen finds that about a third of the cases show signs of improvement. In alopecia areata the results are very encouraging, and in a recent paper ("Hospitaltidende," Nr. 13, 1900) Dr. Finsen describes cases of epithelioma of the skin which have been greatly benefited by the light treatment. Rodent ulcer is difficult to treat owing to the fact that in advanced cases it is often impossible to submit the part to the pressure which is requisite.

Progress of Medical Science.

MEDICINE AND NEUROLOGY

IN CHARGE OF

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ASTHMA.

Very little is known of the action of iodide of potash in this disease, but undoubted it is that the action is a highly beneficial one. After all the ætiological factors have been considered and the attack persists, the practitioner will find that large, nearly heroic, doses of kali iodatum will not only cause amelioration, but cure many cases of asthma. Kali iodatum is recommended in all text-books of medicine and therapeutics in doses of five to ten grains every three hours. The effect of such administration is a double one—firstly, it fails to influence the disease sufficiently to make the patient persist in its use; secondly, it is soon followed by bad gastric and skin symptoms. The alterative effect of the salt, its antispasmodic and vaso-dilating action is nearly of immediate benefit in asthma when given in adequate doses. The first effect, and the subsequent freedom from attacks, without the supervention of disagreeable stomach or skin symptoms, usually cause the patient to persist with the medication, and excellent results are obtainable. Above all, in asthma, it is necessary to give immediate relief, and to stop any irritation which is present. While even here the iodide of sodium or potassium will suffice, it is best and safest to give a full dose of morphia or codeine, per os or hypodermically (according to the severity), to allay the attack. The potassium treatment is

then instituted. The patient begins with thirty drops of the solution saturata kali iodati in a tablespoonful of water, followed immediately by a glassful of water, milk or seltzer. The dose is given fifteen minutes before meals, or immediately after each meal. All starch-containing food must be avoided in the latter case. Each day the dose is increased by five drops until teaspoonful doses are taken, when it is similarly reduced back to thirty drops. During the first week of the treatment a solution containing one-eighth grain of morphine or one-fourth grain of codeine is given every four to six hours. A good prescription is the following :

R	Morphia sulph., gr. ij. or codeinæ sulph.	gr. iv
	Spt. ammonii arom.....	3 ss
	Spt. chloroformi	3 ij
	Aqua dest.....	3 x

M. Sig. Teaspoonful as directed.

The potassium iodide can be continued this way for six to eight weeks, while during the time of its administration a tablespoonful of Epsom salts are ordered every morning or every alternate morning, taken in a glassful of hot water before breakfast.

THE JUSTUS BLOOD TEST FOR SYPHILIS.

By Dr. Jones (*New York Medical Journal; Post Graduate.*)

This test was first described by Justus in 1895, and later elaborated by him in 1897. The only confirmatory report published since that date was by Cabot and Mertins in 1899.

The test depends on the asserted fact that a single inunction of mercury causes a reduction of from 10 to 20 per cent. in the hemoglobin in about 24 hours in all untreated cases of secondary, tertiary and congenital forms of syphilis. Justus says that the reduction also follows intravenous and subcutaneous injections, but that the administration of the drug by the mouth has no effect on the blood. The latter authority obtained positive results in more than 300 cases of syphilis. The test was negative in a large series of non-syphilitic cases. Cabot has partially confirmed the results obtained by Justus, although he observed the reaction in two non-syphilitic patients—one a case of tertian malaria and the other a patient with chlorosis.

The test was also obtained by Justus in 13 out of 16 cases in which only a fresh chancre and inguinal adenitis were present. Both Justus and Cabot agree that the so-

called "latent" cases and those which are subsiding either spontaneously or under treatment do not respond to the test.

During the last six months Jones has tried the test in 53 cases, 35 of which were leuetic, the other 18 being controls. In 18 cases of active syphilis not under treatment, 13 were positive and 5 negative. In 2 latent cases the test was negative. In 8 cases of chancre with adenitis, 2 were positive and 4 negative. In 7 cases of chancre without adenitis only 1 case was positive.

The control cases included 5 cases of phthisis, 1 of typhoid fever, 1 of apoplexy, 1 of fractured rib, 1 Colles' fracture, 1 drug habit, 1 of chancroid and 7 of acute alcoholism. All of these were negative. The author used Hammerschlag's and von Fleischl's methods to estimate the hemoglobin. As a result of his experience Jones concludes that the test is of value in the recognition of doubtful cases of syphilis, although it is not infallible. Further, the test often fails in latent cases and in early chancre, and sometimes at the beginning of the secondary stage. He thinks the reaction is of about the same value in syphilis as the diazo-reaction is in typhoid—*i. e.*, its presence in association with other suspicious symptoms is of great value, whereas its absence does not by any means indicate that the disease does not exist.

CLINICAL LECTURE ON HÆMATURIA. (a)

By JOHN H. BRYANT, M.D. Lond., M.R.C.P.

Assistant Physician to Guy's Hospital.

In the course of a clinical lecture, delivered at Guy's Hospital, on a case of hæmaturia, in arriving at a satisfactory diagnosis the author recapitulated the many causes from which this condition may arise. The case upon which the attention of the class was centred was that of a young healthy woman, æt. 21, in whom hæmaturia had come on suddenly after a severe shock to the nervous system. There were no important symptoms or physical signs, the blood was mixed with the urine and appeared to have come from the kidney or the pelvis of that organ. The urine was carefully analysed, and it was found that blood was the only abnormal constituent. A thorough physical examination was made, but revealed nothing abnormal. She was discharged from hospital apparently well, but twelve days after she returned and remained forty-three days; she had pyrexia

(a) Abstract of Clinical Lecture delivered at Guy's Hospital.

for a month, the temperature running a course very like that of typhoid fever. The patient was a married woman who had had one child, labour having been easy with no bad symptoms following it. The most important symptom of disease appeared to be blood in the urine, and the first consideration was to determine whether the case was one of hæmaturia or hæmoglobinuria. The large number of blood corpuscles found in the urine made it quite certain that it was hæmaturia and not hæmoglobinuria. It then became necessary to attempt to determine the cause of the hæmaturia, which might be due to a large number of causes:—*i.e.*, morbid changes in the kidney, pelvis, ureter, bladder, urethra, or blood. Blood from the kidney was usually intimately mixed with the urine, so that it presented a uniform color; blood from the bladder might also be intimately mixed with the urine, but often the first urine passed was quite clear, the blood appearing towards the end of micturition; blood from the urethra was either passed at the beginning or at the end of micturition, and the quantity was usually small. The blood in the case under discussion was intimately mixed with the urine, indicating the kidney or pelvis as the seat of hæmorrhage. The patient was not menstruating, and there was no evidence of uterine fibroids, uterine carcinoma or malingering. There was no evidence of *active congestion* as the result of a chill or acute febrile disease, and none of any noxious drug used internally or externally. There were no physical signs or symptoms of heart or lung disease, so *passive congestion* was put out of court. There was no evidence of *acute nephritis*, the urine being neither scanty, of high specific gravity, nor largely albuminous. Chronic tubal nephritis, chronic intestinal nephritis, suppurative nephritis, calculi, embolism, tubercle, carcinoma, sarcoma, cystic disease, movable kidney, injury, parasites, pyelitis, aneurism, were in turn discussed, but were eventually all dismissed as not fitting the case under consideration. There was no other indication of hæmorrhage beyond the hæmaturia. There was no family history of hæmophilia, the spleen was not enlarged, there was no purpuric eruption, there was no anemia, and there was also no reason to suppose it was due to any of the acute fevers; therefore, the only deduction was that the case was one of bleeding from a healthy kidney. The late Dr. Moxon was much interested in this condition, and used to compare it to epistaxis, arguing that, if epistaxis occur without any obvious organic change in the nasal mucous membrane, why should not hæmorrhage arise from the kidney in a similar manner. It had long been recognised that renal hæmaturia might occur without any obvious morbid

change in the kidneys and unconnected with any general disease such as purpura, hæmophilia, etc. Many surgeons had doubtless operated for hæmaturia expecting to find calculus or some other morbid change, and had found nothing to account in a satisfactory way for the hæmaturia. A curious feature in cases of this nature was that after exploratory nephrotomy or pyelotomy the hæmaturia often ceased. Mr. Harry Fenwick (*b*) had reported two cases of a similar kind, one was a young girl who had suffered from intermittent hæmaturia for five years, the attacks coming on suddenly when she was in good health. Operation was performed, the pelvis being carefully incised and examined, and what appeared to be a villous tumour of a papilla was found and removed. Subsequently it was examined microscopically, and it was suggested that it might be an early stage of fibromatous condition. The second case was a lady, aged thirty, in whom hæmaturia had commenced fourteen days before without apparent cause. On operation a "bright red varicose papilla was found," which examined microscopically showed nothing beyond distended blood vessels and extravasation of blood. These two cases were to be regarded as of great importance, and Mr. Harry Fenwick's deductions were that in at least some of these cases the bleeding emanates from one of the renal papillæ and the mucous membrane covering it, the papillary part of the Malpighian pyramid being engorged and covered with a plexiform mesh of dilated vessels. Other cases had also been reported by foreign observers, in which the characteristic features were that the hæmaturia might disappear spontaneously or after an exploratory operation, that, as a rule, no anatomical lesion could be demonstrated and that medical remedies were unavailing. A theory that the hæmorrhage might be due to an angio neurosis had been put forward—a view supported by its more frequent occurrence in women than in men and by its cure by operation on the kidneys. On the occasion of the patient's second admission to hospital her symptoms were of a still more obscure nature; she had temporary pyuria and pyrexia, but no renal enlargement, pain or tenderness, and she was in a well-nourished condition, all of which helped to make a diagnosis in her case still more difficult and unsatisfactory.—*The Medical Press*.

AN EXCLUSIVE SOUP DIET AND RECTAL IRRIGATIONS IN TYPHOID FEVER.

A. Seibert, in the *Archives of Pediatrics* for Septem-

(b) *British Medical Journal*, Feb. 3rd, 1900.

ber, 1900, has been so impressed with the importance of bacteria which have developed in milk as the cause of enteritis in children that he has been asking himself the question as to whether a milk diet in typhoid fever does not add to the intestinal contents an excellent culture medium. More than ten years ago he began feeding his first case of typhoid fever upon a diet other than milk. In the beginning of typhoid fever he empties the bowels with a cathartic and gives nothing but plain cold water for the first twenty-four or forty-eight hours. Then soups are given: meat broths, containing oatmeal, barley, rice and peas, strained and well spiced with salt and pepper. After a few days lentil soup and the yolk of a fresh egg are added to the oatmeal, rice and barley. Five meals in all are given during the day, but at night only fresh cold water. In cases which were not characterized by marked acidity of the stomach contents, hydrochloric acid was given before each meal. Every typhoid case is given from two to four plain water rectal enemata daily. For this purpose rectal tubes are not necessary, as a very slight elevation of the hips will allow of the colon being filled with water, thus thoroughly cleansing the lower bowel. The fountain syringe requires to be elevated about three feet above the patient, and only a short-tipped tube should be employed, which cannot possibly reach any ulceration that may exist in the lower bowel. He has treated 153 cases in this manner, with seven deaths. Three of these were brought to the hospital moribund, and four had complicating bilateral pneumonia.—*Medicine.*

ANÆMIA AND ITS RATIONAL TREATMENT.

By W. E. HOLLAND, M.D., Chicago, Ills.

Consultant, Mary Thompson Hospital, Assistant Gynecologist Illinois Medical College.

From the standpoint of our present knowledge there is no contesting the fact that in all forms of anæmia, iron, alone, or in combination with other recognized remedies, stands without a peer. The results accruing from its use, however, are in direct ratio to the assimilability of the preparation used.

The condition of the digestive organs during the administration of iron, and the consequent lack of power to utilize the remedy as ordinarily prepared, have presented a very discouraging prospect for the patient and disappointment to the physician, who finds that nearly all the chalybeate compounds can be tolerated but a short time—much shorter than is necessary for the accomplishment of the

desired result, producing almost invariably loss of appetite, irritability of the stomach, obstinate constipation, headache, etc.

With an experience of some time in hospital as well as private practice, during which I have been fortunately or unfortunately blessed with an unusual number of complicated and apparently uncomplicated cases of anæmia, I have had the inclination and quite ample opportunity to test the various ferruginous simples and compounds as to their relative merits, and of all used preparations those of the solution of pepto-manganate of iron, for their acceptability, unirritating properties and relative efficacy, held deservedly undisputed sway and preference, until the preparation "Hemaboloids" was brought to my notice. Skeptical and slow to depart from well-tried though not entirely satisfactory paths, I at last did experiment in a case that had resisted not only my efforts but those of a number of recognized therapeutists, and obtained unusually satisfactory results.

No irritation of the stomach, no anorexia, no constipation, no headache, but, on the contrary, increase of appetite, regularity of the bowels, increase in bodily weight and red blood count.

The following is a record of the most obstinate case treated, which may be regarded as a fair specimen result obtained in upwards of twenty-five cases.

This case was of particular interest since the patient presented an exceedingly unfavorable tubercular history, her mother being affected at the time and two sisters having died of the malady.

Treated with Hemaboloids $\frac{3}{4}$ after meals and at bedtime.

1st. week, weight	157,	Hem.	57	p.c.	R. B. C.	2,900,000	W.B. C.	8,500
2d. "	"	158,	"	60	p.c.	"	3,000,000	" 8,000
3d. "	"	160,	"	65	p.c.	"	3,800,000	" 8,000
4th. "	"	163,	"	73	p.c.	"	4,000,000	" 7,000
5th. "	"	162,	"	78	p.c.	"	4,300,000	" 6,500

Various preparations have from time to time been lauded for their effect upon the blood and the blood-making organs, and many of the old tried and new remedies have virtues of varying degree, and I have had a reasonable measure of success with all of them, but, from the almost uniformly gratifying results from the use of the remedy just cited, it certainly has in my hands and from my experience been the remedy *par excellence* and well worthy of a trial in all those obstinate forms of blood impoverishment which resist other recognized treatment.

In closing, let me further remark that in the treatment of these cases the necessity and benefit of carefully selected,

concentrated diet, regularity of feeding, fresh air, salt baths and, last but not least, keeping the intestinal tract in an aseptic condition, must not be lost sight of.—*The Medical Times*.

SURGERY.

IN CHARGE OF

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AFTER-TREATMENT OF PERITONEAL SECTION.

Henry T. Byford, *American Gyn. and Obstet Journal*, gives his method of inducing peristaltic action as soon as possible after peritoneal section, for the purpose of preventing intestinal paralysis and adhesions. His success prompted him to use it in simple as well as complicated cases, in order to make the patient more comfortable and to render the convalescence more rapid. This method consists of 4 drams of fluid extract of cascara, or some equivalent, two hours before the time set for operation, dram doses of sulphate of magnesia every hour from the time the patient awakes after the operation, and a high glycerine and water enema (ʒii to ʒiv) every two hours, beginning eight hours after. A high glycerine enema was given before the patient left the table after operations in which adhesions were separated and raw surfaces left. A prompt movement of the bowels and a free passage of flatus not infrequently resulted from this enema before the others were given, and hence he began giving it as a routine practice in order to save, as far as possible, the trouble connected with giving a nauseated patient the salines and later enemas. The treatment must, as a rule, not be discontinued until the patient passes flatus, not only with the enemas, but also freely between enemas, *i. e.*, efficient peristaltic action should continue at intervals. After the first day means must be taken to maintain frequent peristalsis and a daily evacuation of the bowels. To this end two drams of sulphate of magnesia or two or three ounces of Hunyadi water are given night and morning for two weeks, the dose being regulated according

to the effect. The treatment may be modified somewhat to suit different cases. If a patient be in need of a stimulant, usually an ounce of whiskey is added to the enema administered on the operating table, giving what in the Woman's Hospital is called the one, two, three enema, viz: one ounce of whiskey, two of glycerine and three of water. In patients who have lost much blood, a large, high beef-tea enema is given instead, and repeated every four hours.—*Pacific Med. Jour.*

INJECTIONS OF ETHER IN SEBACEOUS CYSTS.

Emile Sergent, in *La Presse Médicale*, of June 30, 1900 has an interesting article on the treatment of sebaceous cysts by injection. The proceeding was first employed by Vidal in 1883, and was practiced extensively by Lermoyey. Sergent has treated about thirty cases, all of which were radically cured. The manner in which the injection acts has been variously explained. By some it has been thought to be due to an inflammation excited in the wall of the sac, and by others to the power which ether has of dissolving the sebaceous matter contained in these cysts. The writer is of the opinion that the latter explanation is correct, for he says that inflammation is an accidental concomitant due to a failure in aseptic technique. It is possible to treat cysts of all sizes in this way, but those which are small, composed mostly of fibrous tissue with very little sebaceous matter, are not likely to be benefited. The method is inapplicable to cysts that have already undergone inflammatory changes.

Pure sulphuric ether is employed, and the usual operative aseptic procedures are used. A hollow needle connected with a sterilized syringe is thrust directly into the cyst. The cyst is then distended with ether, the needle being allowed to remain in position. The ether immediately dissolves the sebaceous contents of the cyst, and some of it escapes. Then more ether is introduced. The number of injections required will depend upon the size of the cyst and the condition of its walls; commonly from four to twelve are necessary. When the cyst is much softened or fluctuation is apparent, and a brownish crust appears at the margin of the point where the needle is thrust into the sac, the contents may then be readily expressed by opening up the tract with a stylet. If this cannot be done, an additional injection or two may be given. After the contents of the sac have been evacuated, it is possible to remove the sac through a comparatively small opening. It is claimed that this is the best treatment for cysts of medium size. It is not painful, no blood is lost, there

is no danger and no cicatrices are left. The latter the writer regards as of especial importance, as he says there is really little to choose between a head which is covered with wens and one which is covered with scars left by their removal.—*Medicine.*

PROSTATIC HYPERTROPHY.

G. Frank Lydston, in the *International Journal of Surgery* for June, recommends total resection of the spermatic cords as a substitute for both castration and vasectomy in the treatment of prostatic hypertrophy. He gives the following reasons :

It produces less traumatism, a very important item in old men.

There is less danger to the kidney, because of minimized shock.

The testes not being removed, there is none of the psychic disturbance incident to a consciousness of the loss of the testes.

Cocaine may be more safely used.

The subsequent shrinking of the testes is so gradual that little complaint is made.—*The Charlotte Medical Journal.*

MODIFICATION OF WHITEHEAD'S OPERATION FOR HEMORRHOIDS.

The present surgical methods for the treatment of hemorrhoids are reviewed by the writer.

Allingham's modification of the ligature is considered insufficient. The clamp and cautery is unhesitatingly condemned as unscientific and inefficient, and Allingham quoted to show that it causes great pain, hemorrhage is apt to result, sloughing is considerable, and a long time is required for healing. The hypodermic method is severely criticised because it is impossible to confine the action of the agent used, hyperplasia of tissue is likely to follow, and secondary abscesses are not uncommon. Cutting off each tumor and drawing the cut surfaces together by means of continuous sutures is found objectionable because it is not adaptable to cases in which the whole circumference of the anus is involved ; there is danger of infection, and other reasons.

The author proceeds as follows : He grasps the hemorrhoid by means of clamp forceps, puts it upon the stretch, and begins with his running sutures at the upper or mucous end of it, cuts small portions of the stump, taking stitches after each incision until the mass is removed. Then the forceps are withdrawn and the stitches made tight. If the entire

anal circumference is involved, the tissues are grasped at Henle's white line and pulled down and out. The incision is made in the median line at the posterior commissure and the sutures begun at the bottom of this incision. He catches the part by means of clamp forceps and proceeds as in the removal of a single hemorrhoid.

Non-exposure to infection and healing by first intention are claimed by the author as special advantages for his method.—*Dr. S. T. Earle, Trans. Amer. Pract. Soc., Post-Graduate.*

THE POST-OPERATIVE TREATMENT OF HEMORRHOIDS.

Dr. J. R. PENNINGTON (*Trans. Amer. Pract. Soc.*) makes the point that the after-treatment of hemorrhoids, as practiced at present, is apt to give rise to much pain to the patient, and is often the true cause of hemorrhage, stricture, ulceration and other dangerous complication.

The pain, he claims, is due to the protrusion and swelling of small tabs of skin after the ligature or cautery, and as the tender granulation-sprouts, which find their way into the meshes of the gauze, are broken off on the removal of the dressing, the bleeding is also apt to be considerable, leaving a field fraught with dangerous possibilities to the surgeon and his ward.

The author proposes to overcome these difficulties by the use of a specially devised tampon, which consists of a rubber tubing around which he wraps some sterilized gauze, and the whole covered with a rubber covering and dusted with an antiseptic powder. Movement of the bowels is induced in 48 hours, and the dressing removed before defecation. Then the parts are cleansed and dusted and the bandage put on.—*Post-Graduate.*

SURGICAL TREATMENT OF NON-MALIGNANT STRICTURES OF THE RECTUM.

The various procedures for the relief of this condition are considered and for the most part condemned.

Dilatation of the stricture by bougies causes an excessive irritation with the formation of new fibrous tissue which increases the stricture in time.

Divulsion, producing an enormous death rate, is justly condemned.

Internal proctotomy is extremely dangerous because a wound is made in a septic field, with no chance of free drainage.

Complete proctotomy provides free drainage, but there is so much extra scar tissue added that the condition of the patient is worse than before the operation.

Resection with end to end anastomosis is no better, as ultimately the stricture will re-form, on account of the irritation caused by the peristaltic action of the gut at the point of union.

The author speaks of two operations, one for stricture above, the other below the levator ani. For the former he recommends laparotomy in the median line, anastomosis between the sigmoid and rectum below the stricture bringing two peritoneal surfaces together, which he scarifies first, then sutures to insure adhesion, provides for drainage, and closes the abdomen. He now clamps the septum from time to time, by inserting the blade of a specially constructed forceps through the anus into the sigmoid and the other along the rectal wall until it is completely severed.

For stricture below the levator ani, he produces a mucous fistula, by passing a heavy silk thread on an aneurismal needle through the anal opening, carrying it through the rectal wall posterior to the stricture and again into the rectum above the constriction, and tying it loosely. The production of the mucous fistula prevents the formation of scar tissue. The thread is left in three months, at which time a second operation is performed and the stricture severed upon a probe.—Dr. Joseph B. Bacon.—(*Trans. Amer. Pract. Soc., Post-Graduate.*)

THE DIAGNOSIS AND TREATMENT OF CONGENITAL DISLOCATION OF THE HIP.

The author believes that congenital cases of dislocation of the hip are far from uncommon, and are met with in individuals who are otherwise healthy. It is on account of its reputed rarity that it is apt to be overlooked or mistaken for some other affection of an entirely different kind. To confirm this opinion a number of cases are reported. Some were supposed to have spinal disease and others infantile paralysis. The diagnosis depends upon the attitude of the child while standing, the peculiarity of the gait in walking, the prominent hip or hips, shortening of the limb, if single dislocation, pain, delayed walking, limitations in the motions of the joint, crepitation, movement sometimes of the head of the bone over the pelvis, and above all the relation of the head of the bone to Nélaton's line. The writer's plan for treatment is to use by manual or mechanical means all the

force necessary to bring the head of the bone to its normal site. In this case the proper muscles are elongated, which is safer than cutting the wrong muscles.

The non-cutting reduction method is rarely effective after the age of four or five, but is especially effective in infants or in those under two years of age. No unpleasant symptoms have been traced to the severe traction, and in some cases 150 to 200 pounds were used.—*Dr. W. E. Wirt, Cleve. Med. Gaz., Post.-Grad.*

SURGICAL HINTS.

Hernias co-existing with adherent omentum are never safe, and especially so in men of active life and habits. In these cases it is always best to advise operation.

In cancer of the breast the presence of a large amount of fat renders less easy a thorough removal of the glands. Hence the prognosis of cure or prolonged survival must be more guarded in fat than in lean women.

In all plastic operations it is important to remove the stitches as soon as possible. If left too long in the skin they will cause the formation of small scars, while if the operation has been done through mucous membranes the cutting through of stitches causes the formation of little tags.

Sickly, pale children with clubbed fingers may have chronic bone disease, or bronchiectasis, or congenital heart trouble, but in the great majority of instances there is an empyema, and hence the necessity of always carefully examining the lungs in this class of children.

When investigating the rectum with a long bougie it is always well to remember that there are two possible sources of error. In the first place the instrument may so double over that a mistaken idea of the length of the channel will arise. On the other hand, the bougie may be arrested by one of Houston's folds, thus simulating a stricture.

It is only permissible to do an incomplete operation for cancer when it is knowingly performed with the object of relieving pain, soothing the imagination by giving the patient a faint hope, and getting rid of a loathsome sore, and because we know that recurrence in a scar is usually much less painful than the original ulcerative process.

In the diagnosis of malignant tumors it is well to recollect that the element of pain is quite an uncertain one. Sarcomata, for instance, are usually less painful than carcinomata, and yet we occasionally encounter cases of painless carcinomata of various regions. In some instances of adenoma the pain may be just as severe in as either of the other two.

In the presence of large aneurisms of important vessels it is well to remember that operation is most likely to succeed when the occurrence is recent, when there is no evidence of aortic or mitral disease, when there is an absence of the rasp sound along the aorta, which would indicate extensive atheroma, and when there is no important visceral disease.—*International Journal of Surgery; American Practitioner.*

MEDICO-LEGAL RELATIONS OF THE X-RAYS.

The following conclusions were unanimously adopted as expressing the views of the American Surgical Association:

1. The routine employment of the X-ray in cases of fracture is not at present of sufficient definite advantage to justify the teaching that it should be used in every case. If the surgeon is in doubt as to his diagnosis, he should make use of this as of every other available means to add to his knowledge of the case, but even then he should not forget the grave possibilities of misinterpretation. There is evidence that in competent hands plates may be made that will fail to reveal the presence of existing fractures or will appear to show a fracture that does not exist.

2. In the regions of the base of the skull, the spine, the pelvis, and the hips, the X-ray results have not as yet been thoroughly satisfactory, although good skiagraphs have been made of lesions in the last three localities. On account of the rarity of such skiagraphs of these parts, special caution should be observed, when they are affected, in basing upon X-ray testimony any important diagnosis or line of treatment.

3. As to questions of deformity, skiagraphs alone, without expert surgical interpretation, are generally useless and frequently misleading. The appearance of deformity may be produced in any normal bone, and existing deformity may be grossly exaggerated.

4. It is not possible to distinguish after recent fractures between cases in which perfectly satisfactory callus has formed and cases which will go on to non-union. Neither can fibrous union be distinguished from union by callus in which lime salts have not yet been deposited. There is abundant evidence to show that the use of the X-ray in these cases should be regarded as merely the adjunct to other surgical methods, and that its testimony is especially fallible.

5. The evidence as to X-ray burns seems to show that in the majority of cases they are easily and certainly preventable. The essential cause is still a matter of dispute. It seems not unlikely, when the strange susceptibilities due to

idiosyncrasy are remembered, that in a small number of cases it may make a given individual especially liable to this form of injury.

6. In the recognition of foreign bodies the skiagraph is of the very greatest value; in their localization it has occasionally failed. The mistakes recorded in the former case should easily have been avoided; in the latter they are becoming less and less frequent, and by the employment of accurate mathematical methods can probably in time be eliminated. In the meanwhile, however, the surgeon who bases an important operation on the localization of a foreign body buried in the tissues should remember the possibility of error that still exists.

7. It has not seemed worth while to attempt a review of the situation from the strictly legal standpoint. It would vary in different States and with different judges to interpret the law. The evidence shows, however, that in many places and under many differing circumstances the skiagraph will undoubtedly be a factor in medico-legal cases.—Philadelphia Meeting, *Pacific Med. Jour.*

CONDITIONS SIMULATING APPENDICITIS AND PERI-APPENDICULAR IN- FLAMMATION.

Janeway (New York Medical Journal) describes the different lesions which may be mistaken for appendicitis, and mentions neuralgia as one of the troubles. The cases in this category relate to those neuralgias whose origin is obscure and can not be referred to any abnormal condition of any organ. There are neuralgic pains reflected from above, as in pneumonia and pleurisy. Another source of difficulty in diagnosis is afforded by the condition of the right kidney. Among these conditions may be mentioned renal colic, when somewhat protracted, and especially when accompanied with fever. Still greater trouble has been occasioned by hydronephrosis, for in this trouble there is a swelling on the right side, with some tension of the abdominal muscles. Intermittent hydronephrosis, hydronephrosis with a displaced kidney and a movable kidney, may be mistaken for appendicitis. Among the intestinal sources of error in diagnosis are ulcers of a comparatively latent course, gastro-intestinal catarrh with colic. Tubercular ulcers, with tuberculous peritonitis over and about the cecum may give rise to very great difficulty in diagnosis. Fecal impaction may at times simulate peri-appendicular inflammation. There is a class of cases in which there exists an ulcer or narrowing, non-malignant, of the hepatic flexure of the colon, which

may be accompanied from time to time by accumulations of feces in the cecum and colon. These patients have occasional fever also. These combined events may give rise to considerable trouble in diagnosis. The pain and tenderness accompanying certain cases of typhoid have led to an operation for appendicitis, as have also the general pains of follicular tonsillitis. As other troubles which may cause errors in diagnosis may be mentioned abscess of the ovary, salpingitis, retained menstrual fluid, retroperitoneal abscess, and at times hypochondriasis.—*The Chicago Clinic Am. Practitioner.*

THE ABORTIVE TREATMENT OF BUBO.

H. M. Christian, in the *Therapeutic Gazette* of August 15, 1900, says that highly satisfactory results have been obtained by the abortive treatment of bubo. Successful application of the method depends upon its being instituted early, before supuration has set in. Another condition is that it shall be due to gonorrhea, chancroid or herpes, as tubercular infiltration of the gland is not influenced by the treatment. The treatment recommended by the writer consists in the direct application of the following ointment:

R Ung. hydrarg.....
 Ung. belladonnæ.....
 Ichthyol.....
 Lanolin.....â â 3 ij.

The ointment is spread upon a piece of surgical lint, and applied directly to the swollen gland. Cotton is next laid over the gland, and the whole is held in its place by a spica bandage, with firm pressure. This treatment is carried out every day until resolution takes place, which is usually accomplished in from ten days to two weeks. Twenty buboes have been treated in this manner, of which twelve were successfully aborted. Eight of the cases followed gonorrhea and four chancroid. Of the eight cases where the abortive treatment failed, six were cases of tubercular adenitis. The result of this treatment has convinced the writer that fully 50 per cent. of buboes other than tubercular can be successfully aborted by this treatment, provided only that it be employed before the formation of pus.

THE TREATMENT OF EMPYEMA.

To summarize the treatment of empyema the following propositions, according to E. Martin (*Therapeutic Gazette*), seem tenable:

1. Empyema is best prevented by promptly evacuating all considerable inflammatory effusions.

2. In the diagnosis of these effusions, by means of exploratory aspiration, the skin should be punctured by a tenotome at the point where the needle is to be driven in.

3. Serous effusions are best evacuated by aspiration. If they reaccumulate after the third evacuation, they should be subject to continuous siphon drainage, the puncture being made by a small trocar and canula, the latter being of such size that a small drainage-tube may be slipped through it.

4. Recent empyemata are best treated by continuous siphon drainage, the tube being introduced through a canula of at least the diameter of the little finger.

5. When, because of a narrow intercostal space, or because of constant blocking with fibrinous material, siphon drainage thus provided is inadequate, an inch or one of the ribs (usually seventh or eighth) should be resected, and a drainage-tube the diameter of the thumb should be used.

6. When the conditions are such that it is obviously impossible for the lung to expand under the influence of siphon drainage and respiratory exercises, Delorme's operation of stripping the pseudomembrane from the compressed lung should be attempted.

7. When Delorme's operation is impracticable, a resection of the ribs (Estlander) or the chest wall and thickened pleura (Schede), corresponding in extent to the size of the underlying cavity, is indicated.—*Medical Age*.

INJURIES ABOUT THE SHOULDER AT BIRTH.

Some of the conclusions given after a study of obstetrical injuries about the shoulder are:

True congenital dislocation of the shoulder, that is, defective development of the scapula and head of the humerus is of extremely rare occurrence.

True traumatic dislocation of the shoulder at birth or in early infancy is of extremely rare occurrence.

Obstetrical paralysis is of Erb's type, due, probably, almost invariably, to a stretching and in some cases a rupture of the two upper roots of the brachial plexus.

Obstetrical paralysis is usually recovered from entirely in the course of a few weeks or a few months. If recovery does not occur within this period the prognosis is very much more serious.

After an infant's arm has been held in the position of inward rotation for some months, the posterior part of the capsule becomes so stretched as to permit the head of the humerus to slip out of the glenoid cavity posteriorly, while the anterior portion of the capsule and the pectoralis major

are shortened. This backward subluxation is always made easier by the relatively small size of the glenoid cavity in infancy.

Any abnormality in the shape of the head of the humerus or in the glenoid in a case accompanied by paralysis or lack of development of the deltoid and supra-and-infra-spinatus muscles is probably secondary to the paralysis, and if accompanied by a dislocation is not to be looked upon as the primary cause of the dislocation. Lack of bony development of a paralyzed arm may become very marked after the lapse of years, and this lack of bony development is not in any way to be regarded as proof of a congenital defect.

All early cases of obstetrical paralysis are to be treated by sling or bandage, which will support the paralyzed muscles and prevent dragging on the ligament and injured nerves.

In cases of obstetrical paralysis which persist without improvement there is reason to hope that surgical intervention looking to a union of the torn ends of the fifth and sixth cervical roots at a point from a quarter to three-quarters of an inch from their emergence from the canal may be of benefit.

The subluxation resulting from the paralysis is to be treated by stretching or section of the contracted muscles and ligaments, by osteotomy, arthrodesis or muscle transfer, according to the conditions present in each case.—*J. S. Stone in Boston Medical and Surgery Journal, Archives of Pediatrics.*

FRACTURE OF THE NECK OF THE FEMUR IN CHILDREN.

Whitman reports (*Annals of Surgery*, February, 1900) 18 cases in children between the ages of two to sixteen. The physical characteristics of this injury are shortening of the limb of one-half to three-quarters of an inch with corresponding elevation of the trochanter and slight outward rotation of the leg. For several weeks or months there may be discomfort on manipulation, but when repair is complete the range of motion is not restricted or slightly limited, and a slight limp is the only symptom. Until recent years this injury was supposed to be confined to adults. In many instances patients are able to walk about within a few days; thus it may be inferred that the separation of the fragments is incomplete, and that the fracture is rather a bending than a displacement. Discomfort or pain during the stage of repair is very often mistaken for hip-disease. Röntgen pictures show depression of the neck as a whole rather than at

the epiphyseal junction. Whitman has also seen 30 cases of coxa vara (which is, practically speaking, fracture of the neck of the femur) in children, but in many instances there may be inherited predisposition to the deformity, or slight depression may result from rachitis. Reports are given of 6 cases, and all but one of these were treated by operation. The first essential is the restriction of abduction, whether of ligamentous or muscular origin, before operating on the bone. A wedge of bone about three-quarters of an inch in breadth is usually removed opposite the trochanter minor; the leg is held in extreme abduction by means of a plaster-of-Paris bandage, which should also include the foot until union is firm. In case of fracture of the neck of the femur it is sometimes possible to replace the neck to a certain degree by forcing the limb into extreme abduction and fixing it in that attitude by plaster-of-Paris bandage or other appropriate apparatus. During consolidation an ordinary traction splint is applied.—*Philadelphia Medical Journal Archives of Pediatrics.*

ANAL AND SCROTAL ECZEMA.

In an article on anal and scrotal eczema, J. S. Moreman, M. D., writes: In the very nature of things eczema is a most harrassing affection, but, when it attacks the scrotum or the anus or labii in females, the story of horrors would require some Victor Hugo to describe it correctly. One patient who suffered with eczema around the anus and on the scrotum declared that the punishment which in mythological story is meted out for Tantalus is nothing compared with eczema. The cases of pruritus ani and pruritus vulvæ will be found in a great many instances cases of pure eczema of these parts. Most of the classical writers on these subjects have declared this to be true, and in a practice where I have seen a great many of these cases I am forced to say that I have found nearly all cases of pruritus ani and pruritus vulvæ to be due to eczema. These patients will tell us how the attacks of itching come on, and the desire to scratch will be almost beyond the power of any human to withstand. In noitol we have a remedy that will promptly relieve the itching, and bring about a cure of the eczematous process. The remedy is a liquid, and is to be applied to the eczematous surface every two or three hours, according to the severity and the frequency of the attacks of itching. Noitol overcomes, not only the itching, but relieves the associated dermatitis.—*Wisconsin Medical Recorder.*

Therapeutic Notes.

GLYCERINE IN FEVER MIXTURE.

The *Clinica Moderna* recommends the following mixture as beneficial in allaying thirst and fever:

R Glycerini puri	3viiss
Acidi citrici.....	3ss
Aquæ destil., q. s. ad.....	3xxv

M. Sig.: One to two tablespoonfuls at one dose to allay thirst and fever.—*J. A. M. A.*

CONVULSIONS IN CHILDREN.

R Moschi.....	gr. ii
Chloralis hydratis.....	gr. ivss
Camphoræ.....	gr. xv
Yolk of egg.....	3iiss
Aquæ.....	3iii

M. Sig.: As an enema when the child is unable to take treatment by the mouth.—*J. Simon: Med. Rec.*

HEMORRHOIDS.

The following prescriptions are recommended for the treatment of painful hemorrhoids in the *Agenda Therapeutica* for 1900:

Extract of esculus hippocastanum fluid.	1 ounce
Chloroform.....	1 drachm.

Morning and evening at meal times, ten to fifteen drops of this mixture is to be taken in a glass of wine or a little sweetened water; or instead:

Fluid ext. of esculus hippocastanum.....	6 drachms
Fluid extract of hamamelia.....	2½ drachms
Oil of peppermint.....	2 drops

Morning and evening at meal times, fifteen drops of this mixture may be taken in wine or sweetened water.—*Therapeutic Gazette.*

AN ANTISEPTIC VARNISH TO REPLACE COLLODION.

The *Journal des Praticiens* attributes the following to Nicaise:

R Thymol.....	22 ½ grains
Balsam of Tolu.....	75 grains
Powdered Shellac.....	900 grains
Alcohol at 90°.....	750 grains
Ether.....	1500 grains

M.—*N. Y. Med. Jour.*

PLEURISY.

Act most promptly in pleurisies with serous effusion of recent origin or of long standing, but they are efficient in simple dry pleurisy, and often act favorably in secondary pleurisy. An agreeable salicylic mixture:

R Potassii acetatis.....	ʒi-ii
Acidi salicylici.....	ʒss
Syrupi limoniis.....	ʒij
Elix. lactopeptine.....	ʒviii

Sig.: One tablespoonful every three hours.

ENDOCARDITIS ASSOCIATED WITH RHEUMATIC FEVER.

R Potass. bicarb.....	gr. xx
Tinct. hyoscyam.....	m xx
Aq. camphor.....	ʒj
Aq. destil., q. s. ad.....	ʒj—M.

R Quinin. sulph.....	gr. j
Ammon. carb.....	gr. ij
Potass. bicarb.....	gr. xx
Tragacanth.....	gr. iv
Aq. chloroform.....	ʒiv
Aq. destil., q. s. ad.....	ʒj

M. Sig.: To be taken three times a day or oftener.—
Med. Bullerin.

Jottings.

TO RELIEVE PAIN AND KEEP BURNS FROM SCARRING.

After washing the surface of the burn by allowing a solution of 1 drachm of common soda dissolved in a pint of tepid water to run from a sponge over the surface, apply the following prescription :—

R Bismuthi subnitratis..... 1 drachm.
Vaselini..... 1 ounce.
Acidi carbolici..... 5 minims.

This added thickly and covered with a light dressing will relieve pain instantly. (*Journal of the American Medical Association.*)

VERTICAL HEADACHE.

For the flushings and vertical headaches of women, Dr. Bulkley prescribes :—

R Diluted nitric acid..... 1 drachm.
Water..... 2 ounces.

M. Sig.: Teaspoonful in a wineglassful of water three times a day. (*Merck's Archives.*)

Olive oil in large doses, twelve to sixteen ounces daily in cases of cholelithiasis, will often remove the stones.

The objectionable excessive perspiration of the feet can be stopped by bathing them with a little formaldehyde in the water.

An ordinary felon, boil or carbuncle may often be aborted by applying to the area sterile gauze soaked in oil of cedar. Before applying, thoroughly scrub and sterilize the skin with hot bichloride solution, 1 to 100. Cedar oil is rapidly absorbed, and I have not yet known it to fail to abort such local inflammation in twenty-four to forty-eight hours. If fluctuation can be elicited, it is wise to make a deep incision before applying the oil.

The Colonial Office has appointed Mrs. Hamilton Williams, M.B., B.S., to be one of the special service medical officers of the Ashanti force. She has distinguished herself greatly as Prideaux Scholar at the London School of Medicine for Women, and as the winner of the County Council research scholarship last year. We believe that Mrs. Williams is the first woman to occupy such a position in the British service.

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Editorial.

MEDICAL DEFENCE UNION.

The St. Francis District Medical Association, at a recent meeting, decided upon the formation of a Medical Defence Union. The idea has been very largely endorsed, and we hope to see before long developed a large organization, which, if properly conducted, can be powerful only for good. At a subsequent meeting of the Society held at Sherbrooke on the 11th inst., the question of Club or Lodge Doctors was discussed. The majority present seemed to think that the members of Lodges ought to be allowed to select their own medical attendant, and that the Lodge pay his bill. In this way, it was asserted, the Lodges would save money. This we do not believe would be the result. On the contrary, such a plan would soon bring about financial ruin. Lodge practice is at best most unsatisfactory work, and the doctor is the "slavey" of the members, but, so far as we can see at present, it will stay. The only thing, then, to be done is to make terms not derogatory to the members of a learned profession, and which will at all events elevate matters. These might be enumerated as follows:—Treble the amount now paid as a yearly fee; pay one dollar for examination of candidates. Let the physician chosen keep his appointment during good behaviour. The semi-annual election of the Lodge surgeon is useful only as a fitting opportunity for

some member with a grievance to surround himself with a few friends and try to turn the Doctor out. Most likely the grievance has simply been compelling the member to go to his work, when he desired to remain on the Lodge. If members belong to several lodges—the sick benefits of which aggregate more than the member's weekly pay—then each lodge should contribute their proportionate share, so that the member shall draw no more sick benefit than he would wages if at work. This is a serious and a very live grievance. It is a curious commentary on human nature that the working man—who joins combines, strikes for higher wages and double wages if called upon to work after hours—grinds the doctor to work at starvation wages, simply because they have failed to learn that "union" is strength.

NO HOSPITAL CHAPLAIN.

A recent number of the *Dublin Medical Press* says:—"According to the terms of a recent bequest to the Geneva New York City Hospital, the hospital 'shall not have an officer known as a chaplain, or have any person in its service at any time, any part of whose duties it shall be to perform such services as are usually performed by a chaplain.' If the request is not complied with, the money, 50,000 dollars in amount, is to go to another hospital. This peculiar stipulation recalls the condition laid down by Mr. Girard, the founder of the well-known institution in Philadelphia which bears his name. This testator was also animated by a dislike for ministers of religion, who are formally excluded from entering the buildings. A funny story is related in this connection. A gentleman wearing a white tie sought admission, but was informed of the fact that the founder had forbidden clergymen access to the grounds. 'The devil he did,' interjected the would-be visitor. 'I beg your pardon,' said the janitor, 'I see I have made a mistake. Pass in.'"

Among the new medical depots recently established in Montreal is that of the Van Ness-Cooper Company of New York, whose place of business is at 28 St. Antoine Street, and whose telephone number is Main 1420. They manu-

facture a number of preparations that are highly spoken of by our exchanges and also by many leading men of the profession. Among these is Lacto-Lithiated Strontium Compound (Van Ness formula), which is specially prepared for use in Bright's disease, where its success has in some hopeless cases said to have been phenomenal. Another preparation made by them is Van Ness Lacto-Marrow Compound; a scientific food compound of pre-digested beef marrow (long bones), eggs, cream, farinaceous matter with hyposulphites and saccharine, held together in solution with choice ferments, making a rich, delicious and palatable food.

The *Dublin Medical Press* says :—" Mr. Lennox Browne was, we believe, one of the first to call attention to the etiological, semeiological and therapeutic analogy which exists between tonsillar inflammations and articular rheumatism, or as he put it, the arthritic diathesis. Without attempting to explain the relationship which presumably exists between the two conditions, its existence is interesting to note. We find almost invariably that persons who are liable to attacks of follicular tonsillitis, for example, have a strong personal or family history of rheumatism; and, on the other hand, those who are free from this taint rarely suffer from this class of angina. The hypothesis of the bacillary origin of rheumatism is rapidly gaining ground, and, influenced by this view, some observers have suggested that the point of entry of the materies morbi is *via* the tonsils. Until the pathology of rheumatism has been more fully worked out, we cannot hope to establish its relationship with tonsillitis, but the subject is one which deserves careful consideration in view of the therapeutical advantages which the solution of the problem may be expected to yield."

Book Reviews.

Lea's Series of Pocket Text-Books. Eye, Ear, Nose and Throat A Manual for Students and Practitioners. By William Lincoln Billenger, M.D., Assistant Professor of Otolology, Rhinology and Laryngology in the College of Medicine of the University of Illinois (College of Physicians and Surgeons); Professor of Otolology, Rhinology and Laryngology in the Chicago Eye, Ear, Nose and Throat (post-graduate) College; Member of the International Congress of Otolologists (London); Member of the American Otolological and Laryngological Association; Fellow of the Chicago Academy of Medicine; Attending Otolologist, Rhinologist and Laryngologist at the West Side Free Dispensary, etc., and A. G. Wipperrn, M.D., Professor of Ophthalmology and Otolology, Chicago Eye, Ear and Throat College. Series edited by Bern B. Gallaudet, M.D., Demonstrator of Anatomy and Instructor in Surgery, College of Physicians and Surgeons, Columbia University, New York; Visiting Surgeon, Beilevue Hospital, New York. Illustrated with one hundred and fifty engravings and six colored plates. Lea Brothers & Co., Philadelphia and New York.

This little volume, which is one of "Lea's Series of Pocket Text-Books," promises to be of deep interest to those who purpose reading up the subject with which it deals. It is intended for the use of students and practitioners, and will be found excellently well suited to the needs of both. Nearly all the affections of the Eye, Ear, Nose and Throat are more or less briefly described in this volume, the more common being treated with a fullness commensurate with their importance. The illustrations are excellent, and the work is systematically and concisely arranged. We take pleasure in commending the work as invaluable as an aid to students.

R. C.

Hygiene and Sanitation. By Seneca Egbert, M.A., M.D., Philadelphia. Publishers, Lea Brothers & Co., Phil. and N.Y.

A really practical hand-book on Hygiene. It is concise and to the point. It is a new departure in the treatment of the subject, inasmuch as it is made very interesting reading.

The student particularly will cherish this little volume, as it presents the subject in that delectable manner which always seduces him. To the practitioner much well-exhibited new information upon the subject will make this book valuable.

The second chapter on Bacteriology, with reference to public health, will appeal specially to the hygienist, as some morphological theories are treated in a very original manner. In every respect it is a book much to be commended.

A. J. R.

Practical Uranalysis and Urinary Diagnosis. A Manual for the Use of Physicians, Surgeons and Students. By Charles W. Purdy, LL.D., M.D., Queens University, Fellow of the Royal College of Physicians and Surgeons, Kingston, Canada; Professor of Clinical Medicine at the Chicago Post-Graduate Medical School. Author of "Bright's Disease and Allied Affections of the Kidneys"; also of "Diabetes, Its Causes, Symptoms and Treatment." Fifth revised and enlarged edition. With numerous illustrations, including photo-engravings, colored plates and tables for estimating total solids from Specific Gravity, Chlorides, Phosphates, Sulphates, Albumin, Reaction of Proteids, Sugar, etc., etc., in Urine. 6x9 inches. Pages xvi.—406. Extra cloth, \$3.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry St., Philadelphia.

This work presents the subject of urine analysis in a very attractive style. Dr. Purdy has done much to popularize the estimation of the chief constituents of normal and pathological urine by the centrifugal method.

Several carefully worked out tables are given, showing the relation between the volumetric and gravimetric percentages of albumin, chlorides, phosphates and sulphates in the urine. It is to be regretted that no mention is made of Harvey Cook's method of estimating uric acid quantitatively by the centrifuge. This method promises excellent results, and has the advantage of being rapid and approximately accurate. It is based chemically on the method of Haycroft, in that the uric acid is precipitated as urate of silver and its bulk percentage estimated.

The diseases of the urinary organs and urinary disorders are dealt with in detail. The work will be found satisfactory as a manual for students and practitioners.

A. B.

Clinical Examination of the Urine and Urinary Diagnosis. A clinical guide for the use of practitioners and students of Medicine and Surgery. By J. Bergen Ogden, M. D., Instructor in Chemistry, Harvard University Medical School; Assistant in Clinical Pathology, Boston City Hospital; Medical Chemist to the Carney Hospital; Visiting Chemist to the Long Island Hospital, Boston. Illustrated. Publishers: W. B. Saunders & Co., Philadelphia. Canadian Agents: J. A. Carveth & Co., Toronto, Ont. Price, \$3.00 net.

This is a valuable work on urinary analysis and urinary diagnosis. Its subject matter naturally falls into two parts.

In the first part, the chemistry of urine in health and disease is fully considered, and much space is devoted to the microscopical study of urinary sediments. The author gives a detailed account of most of the methods employed in urinary chemistry, but makes no mention of the estimation of total nitrogen in urine by Kjeldahl's method, of which every research-worker in a clinical laboratory is expected to have knowledge. Nor does he allude to the use of

Obermeyer's reagent in the determination of urine in disease or to the estimation of the total acidity of urine. Those and other methods which have been omitted will, it is hoped, be mentioned in a future edition. In the second part, special attention has been paid to the diagnosis of diseases of the kidneys and urinary passages.

We can recommend the work as a clinical guide to urinary diagnosis. It is well illustrated and carefully printed.

A. B.

Rhinology, Laryngology and Otology, and their Significance in General Medicine, by E. P. Friedrich, M. D., translated by H. B. Curtis, M.D. Published by W. B. Saunders & Co., Philadelphia and London. Canadian Agents: J. A. Carveth & Co., Toronto.

This work is designed to show the co-relation and inter-dependence between diseases of the entire organism and diseases of the nose, pharynx, larynx and ears. The author claims that a specialty should not be a thing apart, but that it should take active interest in all the problems with the solution of which general medicine is concerned. Hence, active co-operation between general medicine and every one of the various specialties is regarded as indispensable. The author does not claim originality in taking this standpoint, for other works in this line are extant, but he undertakes in this new work to lay before the profession the development of new points, which abundance of material more recently utilized has justified him in giving what he thinks more exact and well-established information. The special detailed symptomatology of the ordinary text-book is omitted, and the author's desire is to awaken the interest of both general practitioner and specialist in certain matters which require special attention and further elaboration.

The writer of this note can appreciate the author's aim, for he has at this moment a case on hand where the scientific elucidation of the throat symptoms have remained an unsolved problem to the best general practitioners, as well as specialists, which this and the adjoining country possess. The book is distinctly commendable.

G. T. R.

Modern Medicine. By Julius Solinger, M.D., Demonstrator of Clinical Medicine, Jefferson Medical College; Chief of the Medical Clinic, Jefferson Medical College Hospital; Attending Physician to the Philadelphia Hospital, and Frederick J. Kalteyer, M.D., Assistant Demonstrator of Clinical Medicine, Jefferson Medical College; Hæmatologist to the Jefferson Medical College Hospital; Pathologist to the Lying-in Charity Hospital, Philadelphia; Assistant Pathologist to the Philadelphia Hospital. Illustrated. W. B. Saunders & Co., Philadelphia and London, 1900. Canadian agents: J. A. Carveth & Co., Toronto. Price, cloth, \$4.00, nett.

No man is to-day able to practice Medicine without having a reasonable knowledge of the various specialties of which his art

consists. Principal among these are physical diagnosis, bacteriology, the examination of the gastric contents, the urine, blood and feces. As this has necessitated the student procuring separate books upon these topics, the authors of this work have combined in one volume, as far as possible, the essential of these branches as applied to Clinical Medicine. The arrangement of the special topics has been adopted to prevent repetition, to present as concise a description of allied subjects as possible, and to link more closely the various divisions. Thus the pathogenic germ of a spinal disease is considered under the head of Clinical Bacteriology, rendering it unnecessary for one already acquainted with such facts to again read the morphology, the biology, the pathogenesis, etc., when dealing with the description of the disease. If the reader should be unfamiliar with the subject, such facts will be found in the section that deals with the micro-organisms that are of importance in Clinical Medicine. A similar course has been followed in regard to physical diagnosis, examination of sputum, stomach contents, blood, urine and feces. The authors have been most successful in giving the main facts of the etiology, pathology, symptoms and prognosis, but we confess we do not admire the terse and brief outline of treatment which is sometimes given. As illustration we mention Pertussis, where the treatment is summed up in eight lines, and in which we do not find any mention of such drugs as quinine, belladonna, etc., which some physicians from clinical experience consider most valuable. Notwithstanding this fault, the work is thoroughly up to date, and will often be found a valuable counsellor.

F. W. C.

The American Illustrated Medical Dictionary.—A

new and complete Dictionary of the terms used in Medicine Surgery, Dentistry, Pharmacy, Chemistry and the kindred branches with their pronunciation, derivation and definition, including much collateral information of an encyclopedic character. By W. A. Newman Dorland, A.M., M.D., Assistant Obstetrician to the University of Pennsylvania Hospital; Fellow of the American Academy of Medicine, together with new and elaborate tables of arteries, muscles, nerves, veins, etc., of Bacilli, Bacteria, Diplococci, Micrococci, Streptococci, Ptomaines and Leucomaines, Weight and Measures, Eponymic tables of Diseases, Operations, Signs and Symptoms, Stains, Tests, Method of Treatment, etc., with numerous illustrations and 24 coloured plates. Philadelphia and London. W. B. Saunders & Co., 1900. Canadian Agents: J. A. Carveth & Co., Toronto. Price \$4.50 plain and \$5.00 indexed.

This is one of those Dictionaries that ought to be found on the book-shelf of every medical man, for what you can't find in it is hardly worth looking for. It is absolutely up to date; although it is not an encyclopedia, it is a concise and convenient word book, aiming to furnish full definitions of the terms of Medicine and kindred branches, as well as such collateral information as medical men generally would be likely to look for. Special attention

has been given to the wording of definitions, with the intention of making them clear, concise, yet sufficiently complete. It also contains a large amount of information arranged in tabular form which is not considered ordinary dictionary matter. The very important features of pronunciation and derivation have received the most careful attention. The system used for expressing the sound is extremely simple, and yet it indicates with accuracy the exact pronunciation of the word. The illustrations are exceedingly good, and the coloured plates a very valuable addition to the work. The volume is bound in a flexible cover, which is a very great comfort in its use. The publishers have succeeded in producing a book of very attractive appearance and convenient size. By the use of a large page, with a compact but clear type, they have succeeded in furnishing a volume which has within its cover an almost incredible amount of matter

F. W. C.

The Australian Medical Directory and Hand-Book.—

L. Bunk, Medical Bookseller, 15 Castlereagh St., Sydney.

We have to thank the publishers for a copy of this volume, which, besides containing the names of the registered practitioners of the Commonwealth of Australia, is filled with a large amount of useful medical information. It gives the legal medical table of fees of the various provinces, a glance at which would certainly stir up a spirit of envy among Canadian practitioners. The medical laws of the different provinces are given in full, and full particulars of the various Universities are also inserted.

PUBLISHERS DEPARTMENT.

THE LIVING AGE.

Boston's long-established weekly magazine, *The Living Age*, opens its two hundred and twenty-eighth volume with the number which bears date on the first Saturday of January. So long a period of continuous publication, running back fifty-seven years, presupposes qualities of enduring value in the magazine and a large measure of attachment on the part of its readers. The fact is that the editors of the magazine have been singularly successful in retaining the characteristics which gave the periodical its original hold upon the reading public, and at the same time broadening its scope and introducing new elements of variety and timeliness. All the conditions of periodical publication have greatly changed since Mr. Littell established this magazine in 1844, but, while other magazines have come and gone, the old *Living Age* has held its place and is even more indispensable to-day to alert and cultivated readers than it was half a century ago. It is still the only weekly magazine in its field, and its frequency of issue enables it to reproduce the most important articles from foreign, and especially from British magazines, reviews and literary weeklies, with a freshness impossible under other conditions. Literature, art, science, biography, travel, poetry, public affairs and the best fiction in short and serial stories find a place in its well-stored pages, and there is not a single weekly number which does not contain something which intelligent readers of whatever special tastes would be poorer for missing. The magazine is published by the Living Age Company, Boston.

CANADA MEDICAL RECORD

FEBRUARY, 1901

Original Communications.

PROGRESS OF GYNECOLOGY.

By A. LAPHORN SMITH, M.D., M.R.C.S., Eng.

Fellow of the American and British Gynecological Societies, Surgeon-in-Chief of the Samaritan Hospital for Women; Gynecologist to the Montreal Dispensary; Professor of Clinical Gynecology in Bishop's University; Surgeon to the Western Hospital; Consulting Gynecologist to the Women's Hospital, Montreal.

In the report of my cases which have appeared from time to time, I have several times referred to the frequency of appendicitis as a complication of disease of the right tube. I have just received a *brochure* on this subject from Dr. McLaren, of St. Paul, in which he states that, out of fifty-eight cases of diseased tubes and ovaries, the appendix vermiformis was affected enough to require removal in twenty of them. He also reports several cases of right-sided dysmenorrhoea which were not benefited by any treatment, even including dilatation and curetting, which were immediately permanently cured by removal of the appendix. This experience entirely coincides with my own. I believe that constipation, which is so frequent in young girls, causes infection of the appendix by the colon bacillus, and the infected appendix, becoming heavy, drops into the pelvis and infects the tube and ovary in the right side.

I was glad to see by his article that he holds the same opinion as myself on the best method of removing the appendix, namely to cut it off as closely as possible to the cæcum and then to treat the hole in the latter as a bullet wound by applying a purse string suture of cat-gut first to the muscular layer and a second one to the peritoneum, thus avoiding abscesses from sloughing of the stump, which frequently oc-

curs when the appendix is tied off in the usual way. I have always been especially opposed to Edebohl's method of inverting the appendix without removing it, for it is bound to slough because it is cut off from its blood supply from the meso-appendix, and during this process it is apt to infect the rest of the cæcum.

The surgical importance of jaundice.—In the course of an able and exhaustive article by Dr. McLaren on this subject, he states that, out of thirteen operations on the gall bladder and bile ducts in 1899, no disease was found in two; in one adhesions existed between the gall bladder and pylorus. The remaining ten all showed gall stones in greater or less numbers, and all of these with one exception showed evidence of cholecystitis, yet in not one of them had jaundice ever been present at any time during the course of the disease. When we come to well-marked and persistent jaundice, he says we find the great majority of these cases to be suffering from carcinoma of the liver. This is a fairly common disease, as appears from the *post mortem* records of Guy's Hospital, namely, 126 cases in 8 years out of 4,200 autopsies or 3 per cent. The surgery of cancer of the liver is very unsatisfactory, the end being hastened even by an exploratory incision. His conclusions are interesting: (1) That slight attacks of jaundice are of comparatively little surgical importance and that the majority of surgical diseases of the biliary passages have no jaundice at all. (2) That persistent jaundice, especially if progressing, is usually a contra-indication. (3) While on the other hand intermittent deep jaundice, especially if associated with chills and a rise in temperature, denotes a stone in the common duct which urgently demands removal.

Vaginal morcellation of the myomatous uterus.—Thienhaus, of Milwaukee, in an elaborate article in the American Journal of Obstetrics for Oct., 1900, strongly advocates this method of dealing with fibroid tumours of the uterus, a method which I have always opposed even after having seen it performed by two of its greatest exponents, Landau, of Berlin, and Segond, of Paris, the latter of whom has since abandoned it in order to adopt Kelly's method. Thienhaus' reasons for preferring the vaginal method are: 1st, He claims that there is more

shock by the abdominal route. This I deny; if the patient is kept warm and dry, if the operation is quickly performed, if only a small amount of anæsthetic is used, if no blood is lost (not more than an ounce or two), if she has been properly prepared and is operated on in the Trendelenburg position, so that above all the bowels are not seen and still less handled, then I claim that there is even less shock by the abdominal operation than by vaginal morcellation. 2nd, He claims that there is less danger of infection of the peritoneum and better drainage, while fæcal fistula due to injury of the bowel which oftener happens after vaginal morcellation has a better chance of recovery. To this I reply that by the abdominal method there is nothing to drain, the peritoneum being left clean and dry and everywhere closed, and the bowels are not injured because we can see what we are doing and can take care not to hurt them. 3rd, That the bowels adhere to the incision. But this does not occur if the omentum is well drawn down behind the incision. 4th, He quotes Winter and Olshausen as saying that ventral hernia occurs after abdominal operations in 8 per cent., after three layer sutures, and in 20 to 30 p.c. after through and through sutures. To this I reply that by leaving the sutures in for 4 weeks I have had no hernia during the last four years in about two hundred abdominal sections. 5th, He claims that vaginal morcellation is safer for the ureters, but I hold that all the cases of injury to the ureters that I have heard of occurred in vaginal operations, and the only time that it has ever happened in my own work was in a case of vaginal hysterectomy, while in my fifty cases of abdominal hysterectomy it has never happened once. 6th, He claims that there is less loss of blood. This I deny; for in my last fourteen cases of abdominal hysterectomy for fibroids there was not in any of them as much as four ounces of blood lost, in some only half an ounce, because all arteries were tied before being cut. Moreover, Thienhaus lost one case in twelve (in this case he was unable to complete the operation by the vagina), while against this I have to report fourteen cases—all I did in the last two years—recovered. One of them was a particularly unfavorable case, being 50 years of age, waxy in appearance and having both an organic and a

hæmic murmur, and yet she made a perfect recovery. Still another objection to vaginal hysterectomy is the removal of the cervix which it implies, for nearly every married woman in whom the cervix is removed complains, and her husband complains of the shortening of the vagina.

Compression of the ureters by fibroid tumors.—Knox, of Baltimore, one of Howard Kelly's assistants, has collected twenty-five cases in which more or less serious disease of the kidneys was caused by compression of the ureters followed in some cases by death from uræmic coma. This article is very timely, because the erroneous teaching is widespread that fibroid tumors, as a rule, cause no injury and should not be interfered with until they become very large. I admit that at one time I accepted this view, but now I am convinced that with so low a death rate from the operation, if done early, this should be done in every case. The deaths are due to complications such as described by Knox and by delayed operations.

Selected Articles.

ABDOMINAL RELAXATION, A PROBABLE FACTOR IN THE PATHOGENESIS OF GALL-STONES.

By JESSE S. MYER, A.B., M.D., St. Louis, Mo.

Different theories have been advanced at different times concerning the origin of biliary calculi, but, based upon false hypotheses, each in turn has added a link to that endless chain of retracted statements and disproven theories that marks the path of every progressiv escience.

Though much has been written concerning the etiology, the symptomatology and treatment of gall-stones, little was definitely known concerning the pathogenesis of these calculi prior to 1890. The last decade has, however, recorded material and substantial progress along this line. The able and convincing publications of Naunyn in 1891 and 1892, in which he maintained that cholelithiasis is invariably the result of infection of the gall-bladder and ducts, with the consequent production of cholesterin, and stagnation of the bile,

gave an impetus to research which has been productive of results that will stand the test of time. Though some of Naunyn's hypotheses have since been proven wrong, he was correct in the fundamental principles, which prior to this time had been in a great measure overlooked. Until now the same principles were thought applicable to these, as to concretions in general.

Von Recklinghausen, for instance, in referring to concretions in general, draws the following conclusions: (1) concretions develop from substances dissolved with difficulty by the tissue juices, secretions and excretions—the gall-stones from cholesterin, and bilirubin salts, etc., etc.; (2) these substances are contained in their vehicles in abnormally large quantities; (3) the presence of a foreign body plays an important rôle, presenting a nucleus around which the precipitated crystals may form layers.

Gall-stones are composed largely of cholesterin and bilirubin-calcium salts, both of which are substances very difficult of solution. Based upon this fact, it was formerly thought that gall-stones resulted from an increase of cholesterin in the blood, due to disturbance in metabolism or the nature of the food ingested, and its consequent excretion by the liver and precipitation in the bile. This explanation, for a time accepted, was finally disproven by a demonstration of the fact that cholesterin was not increased in the blood of those individuals; in fact, that the injection of cholesterin into the blood and its introduction into the intestines did not materially increase the quantity in the bile.

These investigations of Jankau and Thomas, together with his own observations, led Naunyn to the conclusion that cholesterin in the bile is in no way dependent upon the general metabolism and the food ingested, but that the whole has its origin in degenerative processes of the desquamated cells from the gall-bladder and ducts. Inasmuch as cholesterin is found in pus, sputum, serous exudates and transudates—in fact, wherever there is a desquamation and degeneration of the lining cells of the mucous and serous surfaces—Naunyn assumes that the same occurs in the gall-bladder and ducts. Since the quantity of cholesterin in the blood is very small compared with the quantity found in the bile and stones of these cases, he concludes that the entire amount has its origin in these degenerative processes. This theory, however, is scarcely tenable now. The great discrepancy between the quantity of cholesterin in the blood and that in the bile is to be explained by the length of time required for the development of biliary calculi and the concentration there of certain substances through the stagnation

of the bile. Though a very small portion of the stone-forming elements may originate in the manner described by Naunyn, it is now pretty generally maintained by leading authorities on physiologic chemistry that cholesterin, found in various tissues and in the blood, is the result of metabolism, and must be considered an excretion. They consider the bile as a whole an excretory product, having secondary digestive functions to perform; in it are excreted those substances not soluble in water, and which cannot therefore be excreted by the kidneys, skin or lungs. Chief among these substances are cholesterin and bilirubin salts. Inasmuch as bilirubin is found in combination with calcium salts in the bile and biliary calculi, it was at one time thought probable that an increase of calcium salts in the blood, their excretion and precipitation with bilirubin in the bile, played an important role in the development of cholelithiasis. But neither the intravenous injection of calcium salts nor their ingestion with the food increased them as constituents of the bile. In fact, it was not even possible to precipitate the bilirubin salts and cholesterin through concentration of the bile by evaporation or direct addition of calcium to the bile itself. Their solubility is not affected by or dependent upon their concentration.

These substances, otherwise insoluble in water, are held in solution by the cholates and fats. Perhaps a breaking up or dissociation of the cholates would result in the precipitation of these substances that they aid in holding in solution. This theory, too, was doomed to disappointment. Minkowski demonstrated that in the entire absence of the cholates the fats and soaps present are still capable of maintaining the solution.

It has been frequently demonstrated that the presence of foreign bodies in the gall-bladder does not suffice to produce cholelithiasis. Gall-stones themselves have been introduced into the normal gall-bladders of animals only to disappear entirely or in part within a short time afterwards. Other foreign bodies have been introduced and left to remain in the bladder for three to eight months with a like result. Though there are cases recorded in which gall-stones have been found with silk threads, etc., as nuclei, there were in all probability other factors at work in these cases. The truth remains, however, that perfectly sterile foreign bodies introduced into the normal gall-bladder will not result in the formation of biliary calculi.

The foregoing, while proving nothing in a positive way, does show that the cause of the development of gall-stones is dependent upon principles not governing concretions in

general. Their pathogenesis cannot be explained upon a purely chemical basis. An increase of the constituents of the bile, their greatest concentrations, the absence of those substances holding them in solution, the addition of calcium, the presence of foreign bodies, have all failed to explain satisfactorily the precipitation of the stone-forming elements. The cause, then, must be sought elsewhere. The bile of persons afflicted with gall-stones was found upon several occasions to contain pathogenic bacteria. Among those that had been found prior to Naunyn's publication, the bacterium coli commune were the most frequent. This led to their consideration as a probable factor in the pathogenesis of these calculi, and started research along the right path. Inasmuch as the bile has been deprived of much of the antiseptic power formerly attributed to it, it is now well known that infections of the mucous membrane of the gall-bladder may occur in other ways than through the lymph channels. It may result from the presence of pathogenic bacteria in the bile itself. How these intruders gain entrance to the bile in every case is still a disputed point. It is maintained by some that they gain entrance through the ductus communis choledochus from the duodenum, while others claim that this rarely, if ever, occurs, and that these infections take place through the portal system from the intestines. No doubt both are, in a measure, correct. While the infection is most often a hematogenic one, an ascending infection from the duodenum is in all probability possible. Futterer demonstrated through a series of very interesting experiments that bacteria which gain entrance to the portal circulation from the intestinal tract are soon excreted by the liver and kidneys, and are found in the bile and urine. Cultures of the typhoid bacilli, the bacterium coli commune, and the bacillus prodigiosus, and others, were cultivated from the bile of animals into whose portal veins cultures had been injected. He found, too, that micro-organisms may find their way through the intestinal walls into the circulation, even in the absence of great pathologic lesions. That these may retain their vitality in the bile and produce an inflammation of the mucous membrane of the gall-bladder, where stagnation exists, has been frequently seen clinically and experimentally. In fact, no one now doubts the possibility of the blood route of such an infection.

I am led to believe that an ascending infection from the duodenum is also possible, because of an interesting observation that I had occasion to make recently in the microscopic examination of a set of gall-stones. These stones, averaging about the size of a grain of wheat, were cleansed thoroughly externally, crushed and dissolved in ether. The

solution was then centrifugalized, and the ether containing the cholesterin was poured off. This procedure was repeated until only a small powdered precipitate was left behind. The microscopic examination of this precipitate revealed a few yeast cells in branches, several starch granules, epithelial cells, bacteria in clumps and plant rests. These bodies, it seems to me, can be interpreted only as duodenal contents. They may in this case have been a factor in the formation of the stones, but the chief conclusion that I wish to draw from this observation is, that if it is possible for duodenal contents to regurgitate into the gall-bladder, it must be possible for bacteria from the duodenum to do likewise, if there exists stagnation of the bile. Although Cushing found the duodenum of rabbits practically sterile, this would not exclude the possibility of an ascending infection. Assuming even that the same were true of the normal duodenum of the human, it would certainly not be the case where there existed affections of the stomach and duodenum such as dilatation of the stomach, duodenitis, etc.

Leaving out the consideration for the time, being a further consideration of the manner in which the infection occurs, but granting that it is an all-important factor, I desire to consider shortly the investigations that led up to the absolute proof of the relationship existing between cholecystitis and cholelithiasis. Cases of cholecystitis following and complicating typhoid fever have been very frequently reported and bacteriologic proof presented of the typhoid origin of these infections. Flexner found living bacilli in the bile of 50 per cent. of the fatal cases of typhoid fever. Blachsteins found them as late as 128 days after injecting them into the veins of animals. Hunner isolated and cultivated the bacilli from the bile of a patient 18 years after an attack of typhoid fever. Miller found the same 7 years after typhoid infection. Early in 1898 Cushing had collected four cases from the literature of gall-stones following typhoid fever. In these cases there was a co-existing cholecystitis, due to a typhoid infection, as was proven by the bacteriologic examination. While the clinical observations all point in one direction, viz., to the infectious origin of biliary lithiasis, the experimental investigations are even more convincing. With the above data at hand, various attempts were made to produce gall-stones in animals artificially.

These efforts, at first unfruitful, after a time resulted in the formation of imperfect concretions. In 1867, however, Gilbert produced well-formed stones in the gall-bladder of a dog, and soon afterwards Richardson, Mignet, Cushing and

others were likewise successful. It was found in the course of these experiments that something more than the mere introduction of virulent germs into the gall-bladder was necessary for the production of stratified calculi. It was necessary to prevent the too-rapid expulsion of the soft precipitations, and this through the stagnation of the bile. The importance of stagnation of the bile as a factor in the formation of biliary calculi has long been recognized, but not in its true connection. Rokitsansky attributed their development to a "morbid constitution of the bile, which may be abnormal when secreted, or subsequently become so from stagnation and retention."

Netter demonstrated experimentally that stagnation of the bile alone frequently suffices to cause an infection of the mucous membrane of the gall-bladder. If, then, infection plus stagnation results in the formation of gall-stones, and stagnation alone may result in infection, may we not justly conclude that stagnation of the bile in itself may result in the formation of gall-stones. Stagnation, wherever it occurs, promotes the growth and development of micro-organisms. Dilatation of the stomach, in which stagnation of the gastric contents is the invariable result, is characterized by a rich flora of bacteria, urinary stagnation, results in cystitis, etc. The normal peristalsis and muscular activity of an organ are preventives *par excellence* of the further growth and development of the germs contained therein. Germs are ever present, but without a proper soil they do not develop. Virulent bacteria that have gained entrance to the blood through such portals as the tonsils, Peyer's patches, etc., are excreted with the bile, but unless retained in the gall-bladder long enough to multiply and gain, as it were, a foot-hold, no infection occurs. Stagnation, then, is to be looked upon as a predisposing cause and infection as the exciting cause of gall-stones.

I have found little in the literature in explanation of the probable cause of stagnation of the bile in those cases where there exist no pathologic lesions, such as tumors pressing directly or indirectly upon the ducts, scar formation, congenital malformation of the gall-bladder, etc., etc. It is to this point that I have been aiming, and, though a very circuitous route has been taken, I trust the ground covered has been worth the while.

The etiology of cholelithiasis bears a very close relationship to its pathogenesis. A large percentage of gall-stones occurs in women; this is variously stated by different authorities. However, about 85 per cent. occur in the female and 90 per cent. of these in those that have born children.

Those occurring in men manifest themselves after the age of 50, and usually in those who have at one time been fleshy and have lost much of their subcutaneous fat. There is then a predisposing cause in women who have born children and in old men. That the female gall-bladder is more susceptible to infection than the male is not at all probable; that there is a greater provocation for the stagnation of bile there can be no doubt. This fact has led to the popular belief that gall-stones prevail among women because of tight lacing. While this may be a contributing factor, I think entirely too much stress has been laid upon this point heretofore. Tight lacing cannot explain why gall-stones are more frequent among old women than among those who are guilty of the tightest lacing. Statistics collected by Von Recklinghausen, of Strassburg, present, too, splendid argument against this claim. In Berlin where the hospitals are filled with city-bred women and the wearing of corsets prevails, $1\frac{1}{2}$ per cent. to 2 per cent. of the population, as shown by post mortems, are afflicted with gall-stones; in the Strassburg hospital where peasants are the chief source of clinical material, 15 per cent. are afflicted. Peasants are not accustomed to tight lacing indeed, many have never seen corsets, so other sources must be sought for an explanation of the cause of biliary stagnation. The poorer classes, as is well known, are more prolific than the city bred, whose education along certain lines is not neglected, and they are, as a rule, poorly cared for after labor. Either they have a midwife or a neighbor to attend them and are up assisting the husband to earn the daily bread within a few days after labor. The necessity for abdominal supports after labor, avoidance of physical exertion and other like precautions receive no attention at their hands. I am inclined, therefore, for this and other reasons to attribute the stagnation of the bile in many cases to the relaxation of the anterior abdominal walls and a consequent ptosis of the abdominal viscera. That any increase in the size of the so-called abdominal cavity necessitates a displacement of some or all of the viscera, or a dilatation of the hollow organs through the pressure of their contents, seems to me self-evident. The significance of hernias, prolapse of the pelvic viscera, the pendulous and relaxed abdomen in the production of visceral ptosis, and especially nephroptosis, has been very ably presented by Wolkow and Delitzen of St. Petersburg in a work of some three hundred pages. Landau, too, in 1881 and 1885 showed the effect of the pendulous abdomen in the production of ptosis of the kidney and liver, and the principles proclaimed by him have since been applied to splanchnoptosis in general. Indeed, it is now generally conceded that relaxation of the abdominal walls almost

invariably results in mechanical disturbances of the abdominal viscera such as gastropotosis, gastric dilatation, enteropotosis, movable and floating kidney, etc., with all their consequences. A certain external pressure is necessary to maintain the various abdominal viscera in their normal positions, the ligaments alone are not capable of maintaining the entire weight of the organs. Consequently, any relaxation of the pressure exerted by the abdominal walls imposes more work upon and would in time result in a relaxation and stretching of the ligaments, with a consequent ptosis of the organs held in position by them. The relationship of the abdominal organs is such that any displacement of the one disturbs directly or indirectly the normal function of the other. This is especially true of the hollow viscera, and among them the gall-bladder.

The normal expulsion of the bile is attributable largely to the periodical compression of the liver and gall-bladder, with each inspiration against the underlying viscera and to the peristaltic action of the muscles of the bile ducts and gall-bladder. Visceral ptosis then, consequent upon abdominal relaxation, and other causes as well, may cause stagnation of the bile through: (1) Displacing the gall-bladder downward, thus causing a partial obstruction to the outflow of the bile (it has been demonstrated that the very slightest resistance in the ducts causes a stagnation of the bile); (2) through interfering with the counter-pressure normally exerted upon the gall-bladder by the underlying viscera (during respiration); (3) through a dilatation of the gall-bladder itself, atonicity of its muscles and a consequent interference with the normal peristalsis. The pressure within the gall-bladder is positive, being equivalent to the pressure of a column of water 210 mm. high. So long as the pressure from without exceeds or equalizes this, no dilatation can result, but when this equilibrium is disturbed, dilatation and atonicity of the hollow viscus follow. This, in all probability, accounts for the great frequency of constipation in women who have borne children.

In closing, it might be well to mention that, while I have spoken only of visceral ptosis resulting from a relaxation of the abdominal walls, I grant that visceral ptosis, due to any cause whatsoever, would result similarly. Those cases due to inherited tendencies, so ably described by Glénard, those following disturbances in nutrition, senility, cachexias, etc., if sufficiently marked, would bear the same relationship to gall-stone formation.

In a few words the foregoing may be summed up as follows:

1. Visceral ptosis consequent upon abdominal relaxa-

tion and other causes results in stagnation of the bile through interfering with the normal expulsion.

2. The inactivity of the gall-bladder and stagnation of the bile predisposes the mucous membrane to infection.

3. This infection may be either hematogenic, through the portal system, etc., or an ascending infection from the duodenum.

4. This results in a catarrhal inflammation of the mucous membrane, an albuminous exudate, and the exfoliation of epithelial cells. (According to Naunyn, the addition of albumin to the bile produces a copious precipitation of the stone-forming elements.)

5. This precipitate, with clumped bacteria, and degenerated cell masses as nuclei, forms biliary calculi.—*St. Louis Med. Review.*

THE TREATMENT OF FEVER IN INFANTS.

By H. M. McCLANAHAN, M.D., Omaha, Neb.

In order that I may make myself more clearly understood, a few general remarks on the subject of fever may not be out of place. While we are yet in doubt as to the exact mode of production of animal heat, we do know that the bodily temperature, in health, is constantly maintained under varying conditions of atmospheric environment, and that the range of heat either above or below the normal, compatible with life, is limited to a few degrees. Fever is a morbid condition of the system, characterized by a more or less enduring elevation of the bodily temperature. It is a symptom associated with nearly all diseased conditions. Fever is a symptom more frequently present in infants than in either children or adults, and its effects are more immediately serious. Why this is so we do not positively know, but it may probably be inferred that it is due to the preponderance of brain tissue over body and the immaturity of the gray matter, permitting the nerve centers to be more readily disturbed. Because of these conditions, the regularity of the production of heat, which physiologists teach, reside in the nervous system, is less than in the adult. Again, the greater susceptibility of the infant to the invasion of microbes, association with their feeble resisting power, combine to make them more prone to the development of fever.

Fever is a symptom illustrating the intimate relationship between physiology and pathology. Normal body heat is essential to the performance of the vital functions. Febrile

heat is the exaggeration of a normal function rather than a separate and distinct process.

The causes of fever cannot always be determined. Indeed, many cases come under our care, in which this is the only symptom present. Frequently we are unable to discover any cause for the fever. Modern medical thought is in the direction that fever, in the great majority of cases, is due to the invasion of the system by pathogenic bacteria, and that the increased heat is induced by the presence of the bacteria, or their products, in the tissue or fluids of the body. That this has been demonstrated to be true in the greater number of cases does not admit of doubt, but that all fevers are caused in this manner is probably not correct.

In some cases it seems highly probable that fever is due to imperfect elimination; that is, effete material, the result of tissue metabolism circulating in the blood, acts as an irritant to the nerve centers. This theory seems very probable in the case of infants, and will satisfactorily explain many acute cases of fever, because of the immatured cell life and the rapid growth of the tissues, very trivial causes being sufficient to disturb the relation between nutrition and elimination.

It is a curious fact, well established by clinical observation, that mental emotions, as fear, anger, grief and joy, rarely induce fever, but that mental disturbances in those suffering from fever frequently produce an acute exacerbation. Even in infants I am satisfied that the same thing applies. Who has not seen a child suffering from fever made worse by being annoyed by the presence in the sick room of officious friends.

Fever does not always imply the increased production of animal heat, but may be due to decreased elimination. While heat is constantly being elaborated within the various tissues of the body, it is also regularly being dissipated from the body. Undoubtedly, many acute cases of fever are due to the disturbance of this relationship.

With these preliminary remarks we may proceed to the discussion of the subject of treatment of Fevers.

All fevers do not require treatment. Indeed, many are overtreated. Therefore, we may reasonably inquire what are the indications for treatment, when we should interfere and when desist. It is not alone the degree of fever that we should take into consideration, but even more important is the continuance of the fever and the influence of increased temperature upon the nervous system. The injurious effect of fever upon the nervous system is, to my mind, the most important reason for instituting treatment to reduce the temperature.

Infants vary greatly in their immunity to the effect of

fever. The degree of febrile heat that in one infant may have no deleterious effect, in another may cause most alarming symptoms. It will consequently follow that in one case we may feel it to be our duty to institute energetic modes of treatment designed to reduce temperature, whereas, in another case, we can safely desist from any active treatment.

Upon the subject of treatment I have nothing new to suggest. On the contrary, I wish to urge the application of old remedies, and to sound a note of warning against the indiscriminate use of drugs in the treatment of fever in infants. The increasing experience of each succeeding year more and more convinces me of the efficacy of water in the treatment of fever. The technique of hydrotherapy will vary somewhat from that in the adult. Greater care must be taken not to induce shock or excite fear. An efficacious mode of applying water in the treatment of fever in infants is by intestinal irrigation. In carrying out this treatment, it is better for the mother or nurse to place the infant upon her lap, as its movements can be more readily controlled. A rubber cloth, covered by a sheet, is spread across the lap; the end, reaching to the floor, can be placed in a wash bowl or other receptacle; a soft rubber catheter is attached to the nozzle of the fountain syringe, which should be hung about four feet above the child. One or two pints of warm water may be poured into the receptacle, and the catheter inserted into the bowels. As the water flows, cold water is gradually to be added. I think this prevents any undue shock to the child, and I am certain it lessens the resistance of the child to the application of the treatment. The practical point is to retain from half a pint to a pint of the cold water in the bowel long enough for the water to absorb the body heat. In order to accomplish this, it will necessary to exert firm pressure upon either side of the buttocks. It is just here that this method of treatment so often fails to reduce temperature, for the water is expelled from the bowel before there has been time to extract the heat. Again a considerable quantity of water is required. I should say from one to two gallons. With care, this mode of treatment is not painful to the patient, and is very certain in its results. For instance, I saw a child ten days old, on the night of May 29, 1900. Its temperature, per rectum, was $106\frac{1}{2}$. It had had one convulsion before my arrival and had another after I saw it, before I had time to begin any treatment. In that case I used about 6 quarts of water, beginning with the water at the body temperature. Within an hour after the commencement of treatment, the child was resting quietly, free from nervous symptoms, with a temperature of 100.

Another mode of treatment that in some cases is even better is the sheet pack. With infants, in order to prevent shock, I think it is better, after the patient's clothing has been removed, to wrap it in a sheet dipped in warm water. This is to be carefully and smoothly wrapped about the child. Over this a second sheet wrung out of cold water is to be applied. After the application of the second sheet, gentle friction with the hand, to prevent capillary engorgement, is indicated. In the application of this treatment, two symptoms should be constantly kept in mind. One is the character of the breathing, and the other is the tendency to cyanosis. Should the breathing become irregular, or the lips blue, during the application of this treatment, the child is to be removed from the pack, and placed between warm blankets. When the outer sheet becomes slightly warm, cool water can be poured, or, better still, rubbed over by means of a sponge. The important things to be remembered are the constant rubbing to keep up the cutaneous circulation and the constant addition of cold water. The application of this treatment will usually require from 10 to 15 minutes. At the end of this time the child is to be rubbed until the skin is dry and has a good, healthy glow. It is then to be placed in a warm bed. The repetition of this treatment will, of course, depend upon the recurrence of fever and its influence upon the patient. In many of the acute, febrile attacks that we are called to see, one treatment is sufficient. In cases where the fever has been complicated by convulsions, it is always best after the child has been placed in bed to apply cold cloths to the head, or to use a water bag for a pillow, and at the same time to apply heat in the form of hot water bottles or bags to the feet.

Another method of treatment that is of benefit in certain cases is the cooled bath. This is of especial benefit in scarlet fever with a high temperature. With young children an ordinary wash boiler is sufficient. This is to be filled half full of water at about a temperature of a hundred, as nearly as can be determined, and over the body of the boiler a sheet is to be spread. The patient, with clothing removed, is placed upon the sheet, and gently immersed into the water. When the body is covered up to the neck, constant friction with the open hand is to be made over the trunk and extremities. After the child has been in the bath two or three minutes, and has become accustomed to its surroundings, the water can be cooled down to 70 or 80 degrees by simply dipping out a quart of water, and adding a quart of cold water. During this process the constant friction of the body is to be continued. The duration of this bath may be from

8 to 12 minutes. At the expiration of this time the patient is gently rubbed, dried and placed between warm blankets.

I have thus far spoken only of the treatment of fever with a view to the reduction of bodily heat. In all cases it is understood that we attempt to remove the cause of the fever. As I have already indicated, in a large number of cases we are in doubt as to the cause, and therefore we have to treat the patient symptomatically. In a large number of cases in infants, the fever is due to some gastro-intestinal disturbance. In these cases we naturally apply remedies directed to correcting the condition of the stomach and bowels, and the treatment required will suggest itself in each case.

One point I think worth mentioning is the withdrawal of food for some hours. In many of these cases of high temperature in infants the digestive functions are in abeyance, and food acts not only as an irritant to the stomach, but it is highly probable that, owing to imperfect digestion, fermentation and other retrograde changes take place in this way, adding fuel to the flame.

The use of drugs simply to reduce fever will, in many cases, not be required, and in all cases great care is necessary. I will admit, however, that there are some cases where, in addition to the treatment already indicated, high temperature persists, and we are compelled to resort to drugs. In my judgment, the best is phenacetine. Where this is left to be given by the mother at her discretion, it is a wise precaution to instruct her that, should there be any blueness of the lips, to stop the remedy. In cases of extreme restlessness, I think that chloral hydrate given in one grain doses every half hour for three or four times, to children of a year of age, is excellent. In infants of six months, half a grain may be given. In many cases it will be found that the urine is highly colored and extremely acid, and that we can materially assist in controlling the temperature by stimulating the function of the kidneys is true. To meet this indication there is no remedy equal to citrate of potassium. This can be given in doses of from 3 to 5 grains, largely diluted in water. I saw a case during the summer of a child about six months old, where fever had persisted for a number of days in spite of treatment. The urine, as far as could be judged, was very scanty, highly colored, and upon testing on litmus paper was very acid. I placed this child upon the alkaline treatment indicated with a result that in two days the temperature had fallen to normal.

To recapitulate briefly, the treatment of fever in infants is to be governed by the effect of the fever upon the patient,

and is to be given when positively necessary, and their effects carefully watched. Withdraw all milk food for twelve hours or longer, studying carefully the condition of the stomach and bowels. Keep the patient quiet, and the results will be satisfactory equally to physicians and patients.—*The Medical Fortnightly*.

Progress of Medical Science.

MEDICINE AND NEUROLOGY

IN CHARGE OF

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MALARIAL INFECTION.

One of the most important questions in preventive medicine now before the profession is the one of transmission of malaria. The evidence that mosquitoes may and often do inoculate people with malarial germs has been growing stronger, but conclusive experiments have, up to this time, been lacking. It is a pleasure to note in the *British Medical Journal*, quoted by the MEDICAL RECORD that such experiments are being made in a way which will leave little or no doubt on this point. Five or six men have gone into one of the most malarious parts of the Campagna near Rome, have stayed there day and night breathing the air and drinking the water with no protection from malaria other than the careful avoiding of mosquito bites. What means they have adopted to this end does not appear. There is a certainty that so many people would not under ordinary conditions entirely escape the fever, so that, if these men escape, the evidence will be strong that they do so by protection against mosquitoes.

An even more important experiment on the positive side has been carried out by sending mosquitoes in cages from Rome to London. The mosquitoes were first fed on malarial germs, presumably by biting malarial patients, and sent to the School of Tropical Medicine in London. The son of the investigator, Dr. Manson, was bitten by these mosquitoes every other day until their death. He remained in good health for about ten weeks and then developed a typical intermittent fever, and plasmodia were found in his blood. This experi-

ment seems to be as conclusive as one trial can make it in showing that malaria may be transmitted by mosquitoes. Some weeks will be necessary in order to draw definite conclusions from the experiment carried on in Italy. If that one proves successful negatively, it will make a chain of demonstration which, if confirmed by subsequent observations, will set at rest not only the mode of communication of the malarial poison, but the best method of its prevention.

In *Harper's Weekly* of October 6 there appeared an interesting account of the great development of malaria in Italy in recent years. It seems that the improvements which have been made in grading and tearing streets and the making of other changes which result in the stirring up of the soil have caused a recrudescence of malaria to such an extent that individuals in some parts of the country have been compelled to flee to the mountains, and it has been thought that legislation would be necessary compelling the deportation of malarial patients. It begins to look as if pouring oil on the troubled waters in the shape of kerosene applied to stagnant pools to prevent the development of mosquitoes, and the use of mosquito-netting in affected localities, are measures better calculated to modify this curse of many tropical and temperate climate.—*Cleveland Journal of Medicine*.

TO CONTROL HIGH TEMPERATURES.

Dr. C. C. Booth suggests the following method of reducing a high temperature: "The patient is stripped entirely of all clothing, placed upon rubber sheet and covered with one thickness of a piece of cheese-cloth two yards long and the usual width, one end having been split so that each leg can be covered separately. A nurse is directed to squeeze water at about the temperature of the body from a sponge over the entire anterior surface of the body, and to wet the gauze freely as often as necessary to supply the water for evaporation. A case of typhoid fever, with persistent high temperature, is reported in which this method was used. From the beginning of treatment, the pulse, nervous system, temperature, strength and every symptom rapidly improved. The idea originated upon observing the depression of the wet bulb of a wet and dry bulb hygrometer caused by the evaporation of the water from the gauze, which is applied tightly to the bulb containing the mercury. All that is claimed for this method is that it is more convenient, more easily applied, less dangerous, cheaper and pleasanter to the patient than any other method. The gauze is to be kept wet until the temperature is reduced to normal."—*Philadelphia Medical Journal*.

DIGITALIS AND ITS DERIVATIVES.

From a study of digitalis and its derivatives the conclusions reached are as follows :

1. Digitalin and digitoxin each represent the full circulatory powers of digitalis.

2. Digitalis, digitalin and digitoxin stimulate the cardio-inhibitory mechanism, both centrally and peripherally. In larger doses they paralyse the intrinsic cardio-inhibitory apparatus.

3. They all cause a rise of blood-pressure by stimulating the heart and constricting the blood-vessels.

4. Very large doses paralyze the heart-muscle of the mammal, the organ stopping in the diastole.

5. Digitalin of Merck is a stable compound, 1 gram of it being equivalent to about 70 cubic centimeters (18 drachms) of tincture of digitalis.

6. Digitoxin is not to be recommended for human medication on account of its irritant action, which makes it liable to upset the stomach when given by the mouth, or to cause abscesses when given hypodermically, and on account of its insolubility, which renders it slowly absorbed and irregularly eliminated, having a marked tendency to cumulative action.—J. P. Arnold and H. C. Wood, Jr. (*Amer. Jour. Med. Sci.*)—*Pacific Medical Journal*.

THE URINE AS A DIAGNOSTIC FACTOR.

Dr. Kernode concludes an article with the above title, with the following succinct rules, formulated by a Dr. Formad and verified by many investigators :

1. Sediment in the urine has no significance unless deposited within 24 hours.

2. Albumin in the urine does not indicate kidney disease unless accompanied by tube casts. The most fatal form of Bright's disease—contracted kidney—has little or no albumin.

3. Every white crystal in urine, regardless of shape, is a phosphate, except the oxalate of lime crystal, which has its own peculiar form ; urine alkaline.

4. Every yellow crystal is uric acid if the urine is acid, or a urate if the urine is alkaline.

5. Mucous casts, pus and epithelium signify disease of the bladder or cystitis of other parts of the urinary tract, as determined by variety of epithelium.

6. The urine from females can often be differentiated from the urine of males by finding in it the tessellated epithelium of the vagina.

7. Hyaline casts (narrow), blood and epithelial casts

signify acute catarrhal nephritis. There is much albumin in this condition.

8. Broad hyaline casts and epithelial dark-green granules and oil casts signify chronic catharrhal nephritis. At first, much albumin; later, less.

9. Hyaline and pale granular casts and little or no albumin signify interstitial nephritis.

10. Broad casts are worse than narrow casts, for the former signify a chronic disease.

11. The urine should be fresh for a microscopic examination, as the micrococci will change hyaline casts into granular casts or devour them entirely in a short time.

12. Uric acid may, in Trommer's test for sugar, form a peroxide of copper, this often misleading the examiner into the belief that he has discovered sugar. Thus, when urine shows only sugar, the other methods of examination must be used,—preferably the lead-test.

13. The microscope gives us better ideas of the exact condition of affairs in examination of urine than the various chemical tests.—*Tri-State Medical Journal*.

COMPOSITION AND PHYSIOLOGICAL EFFECTS OF BEEF BROTH.

In a communication recently made to the Paris Academy of Medicine, and dealing with the physiological action of meat preparations, Armand Gautier (*Diet. and Hyg. Gaz.*) reports his investigations on the chemical composition and physiological effects of beef broth. A kilogram of lean beef boiled, with gentle heat and for some time, with three times its weight of spring water, yields from two to two and a half litres of bouillon.

When thus prepared, it leaves a dry residue weighing from 15 to 23 grams. This residue is composed of: Albuminoid substances, 6 to 9; kreatin bases, 0.9; xanthin bases, 0.25; inosinic acid, 0.04; taurin, etc., 0.12; inosite and glycogen, 1.40; lactic acid, 0.20; coloring, odoriferous and other undetermined matter, 4.60; soluble mineral salts, 3.76; insoluble mineral salts, 0.38. The total amount of mineral salts—4.14 grams—includes 2.60 grams of potassium acid phosphate, 0.70 of potassium chlorid, and smaller quantities of calcium phosphate, magnesium, iron, and a little sodium chlorid.

If beef broth is made, as is done in most households, by adding kitchen salt (7 grams per litre) and vegetables (carrots and turnips, of each 40 grams, leek and celery, 20 grams), the dry residue per litre weighs 27.3 instead of 19.1 grams;

that is, but 1 gram more, if we deduct the 7 grams of added salt. It follows from this that, contrary to what might have been thought, the common salt does not aid in dissolving meat in hot water, and that the vegetables furnish only one additional gram of dry extract per litre.

The conclusions drawn by Gautier from these data are the following: On account of the albuminoid substances it contains; on account of its sapid and aromatic substances which act by stimulating the sense of taste and the secretion of the stomach; in virtue of its kreatin and xanthin bases which, in small doses, play, like caffeine (which itself belongs to the xanthin group), the role of cardiac and muscular tonics; owing to its organic phosphorized derivatives of lecithin; owing, finally, to its assimilable soluble phosphates, well-made beef broth, is at once a food properly so-called, a stomachic which excites the gastro-intestinal secretions, and a general tonic. This suffices to explain the vogue which the good beef broth of our housewives has always had—and deservedly so, whatever may have been the prevailing theories.—*Pacific Medical Journal*.

TREATMENT OF INFLUENZA IN ADULTS.

R. B. Wilcox divides the disease into three types: (1) That in which the brunt is upon the respiratory system. (2) That in which it is upon the gastro intestinal system. (3) That of the neuro muscular system. The first type demands supportive treatment from the outset. Pay little attention to the reduction of the fever; if such reduction is demanded, depend upon the ice-water coil over the heart. Use no morphine to relieve the pain. To obtain free expectoration give ammonium carbonate in 5 to 10 grain doses. Relieve the nose and throat with menthol spray in albolene. Fluid diet. Substitute strychnine for the ammonia, if the latter is not well borne. Whiskey is not necessary. If pneumonia is present watch the skin, kidneys and bowels. Carbonate of creosote in sherry in 30-drop doses yields good results. For the gastro-intestinal form evacuate bowels with calomel, then antiseptics, such as bismuth. Intestinal irrigation; beef extract by the mouth. Rectal alimentation is frequently demanded. In the neuro-muscular type don't use large doses of quinine. Avoid the coal tar derivatives alone. Use them carefully, combined with salicylic acid and caffeine. Gelsemium is recommended for the headaches and backaches. External hot applications will often relieve the backache. Warm baths are beneficial. The bowels should remain open. If urine is not sufficient; use high enemas of saline solution at 110 degrees.—*Med. News*.

THE TREATMENT OF GALL STONES WITH OLIVE OIL.

Kurt Witthauer assumes a conservative position in regard to operative interference for cholelithiasis, and advises medical treatment in cases in which there is no daily febrile movement nor palpable gall bladder. The most successful agent in his experience is olive oil in large quantities (12-16 oz.), daily given by mouth as long as the patient can stand it, and then by rectum. The stools should always be sifted, that no stones may pass unnoticed. In one case a patient passed one hundred and thirty-seven stones while under this treatment.

IODINE USED HYPODERMICALLY IN THE TREATMENT OF PULMONARY TUBERCULOSIS.

Alfred Careno Croftan declares that iodine is peculiarly a drug against which different subjects show marked idiosyncrasies. The chief symptoms observed are emaciation, usually accompanied by profuse sweats, some pyrexia, and an accelerated pulse; a peculiar psychical depression develops a form of hypochondriasis ("anxietas"). In the light of our theoretical beliefs the administration of iodine should act curatively in pulmonary tuberculosis. Accurate dosage is essential to the success of the plan of treatment that is being advocated; too large doses will certainly aggravate, too small doses will be inefficient. Iodipin injections were tried only on carefully selected cases. Twenty-seven cases have so far been treated with good results; nineteen were cases of incipient tuberculosis with only circumscribed areas of infection in one or the other of both apices. The results obtained so far are not conclusive, they are only suggestive, although they now appear to be sufficiently striking to warrant an optimistic view. The sooner the disease is recognized and treatment begun, the better the prognosis. Iodipin was employed in the form of the ten-per-cent. preparation, and the injections were made into the subcutaneous tissues between the skin and the muscle, preferably in the gluteal and interscapular region. Beginning with one drop of iodipin, which, to give the necessary bulk for hypodermic administration, was dissolved in half a drachm or so of sterilized oil, the injections were gradually increased, one drop being added to the dose each day. The dosage was regulated by the symptoms; as soon as an improvement became apparent the dose exhibited at the time was continued for a period of thirty to sixty days. If the quantity at

first acting beneficially seemed to grow insufficient, the dose was again increased drop by drop; more than sixty minims a day have so far never been given. The writer believes pulmonary tuberculosis in its incipency, before it has become a mixed infection, to be one of the most easily curable of bacterial diseases.—*Journal of the American Medical Ass'n.*, Nov. 17, 1900.

HEADACHE FROM EYE STRAIN.

(Wood, *Med. News*, July 28, 1900).—The site of ocular headaches in order of frequency is as follows: Supra-orbital, deep orbital, fronto-occipital and temporal. The character of the pain is not peculiar, but is more likely to be dull and heavy than very acute. The supra-orbital form is generally accompanied by aching in the eye-ball, and by a deep intercranial ache. Ocular headaches are almost always accompanied by signs and symptoms easily referred to the eyes, and the exciting causes, such as tasks which require the use of the accommodation and convergence, are peculiar, and will help in the diagnosis. For instance, after reading awhile, the letters may run together, the sclera may become hyperemic, and the lids show signs of inflammation. There may be photophobia or specks floating before the eyes. Astigmatism is the most frequent cause, and its diagnosis, in the absence of complicated apparatus, can best be made with the visual test card, the astigmatic chart and Pray's astigmatic letters. Weakness of the extrinsic eye muscles is, to some unknown degree, the cause of ocular headache. Of headaches that simulate the ocular headaches the most difficult to differentiate is the supra-orbital or supra-nasal pain of nasal disease. In these cases, however, there are usually other symptoms, and the pain continues through the night, which does not occur in eye-strain. Supra-orbital malarial neuralgia may be detected by its periodicity and by its being paroxysmal and unilateral, and not accompanied by other asthenopic symptoms. Headaches, due to organic disease of the eye, are practically incurable. If from acute disease, it may be cured by treatment of the acute affection. In the treatment of eye strain proper, such conditions as insomnia, dyspepsia, excessive indulgence in tobacco and alcohol should be attended to and pelvic disorders should be looked after. As far as local applications are concerned, the use of hot or cold fomentation is the most effective and the least harmful. Spirits of camphor, ointment of veratrine or aconitine, or a liniment containing chloroform, camphor and tincture of aconite frequently give relief. A weak galvanic current may give temporary relief.

THE CURABILITY OF INEBRIETY BY MEDICAL TREATMENT.

(Crothers, *Virginia Med. Semi-Mo.*, October 12, 1900).—Thirty to forty cases recover under hospital treatment. Inebriety is now recognized as a distinct neurosis, in which there are certain defects of growth and development that produce a susceptibility to the action of alcohol. The drinking of alcohol is not the disease, but the symptoms of some central irritation and of poisoning and starvation. The medical treatment must be based upon some clear conception of the nature of the disease and the conditions present. The complete removal of all spirits at the beginning is followed by the best results. The reaction which follows can be neutralized by the use of strychnine or sodium bromide in large doses. A calomel or saline purge should be given and followed by a prolonged hot air or hot water bath with vigorous massage. In this way the ptomaines may be removed; and the second indication, that of starvation, should be met by food and tonics. The removal of spirits in all cases reveals conditions of physical and mental degeneration that calls for a great variety of therapeutic measures. The next question is to ascertain the special exciting causes, and remove them: overwork, neglect of hygienic care of the body, irregularity in habits, emotional excitements and depressions, etc. Before a cure can be said to be complete, the underlying cause which produces the craving for the anesthetic and stimulating effects of alcohol must be neutralized and prevented. In certain cases the attacks are preceded by premonitory symptoms, and purges and prolonged baths are of great value. Quassia often does good. After the drink paroxysm has passed away, changes should be made in the diet and living, and constitutional remedies are to be used. Narcotics are to be avoided. Strychnia in large doses frequently repeated, then discontinued for awhile, seems to be the most efficient. Iron, phosphorus, arsenic, potassium and the bitter tonics should be used alternately. Whether treatment will be most effectual at home or in a hospital depends on the case. Most cases can be best treated in a hospital or asylum.

PROFESSOR KOCH ON MALARIA.

At a recent meeting at Berlin of medical men and others interested in the investigation of malarial disease, Professor Koch gave the results of his recent researches. He concurred in the view that the developed parasite, the cause of the fever, was introduced into the human body by mos-

quitoes, but he expressed the opinion that the permanent home of the parasite was in the human body itself, only one phase of its existence being passed within the mosquito. If this view be correct, it is evident that to combat the disease we must begin with the persons actually suffering therefrom, and not with the mosquito, which is merely an intermediary host. This line of reasoning is not quite clear, because if we could suppress any one link in the morbid chain the parasite would not undergo development or would not be transmitted. Even assuming, however, that by suppressing the mosquito we could stamp out the disease, Professor Koch points out that the task is one beyond our accomplishment, and although some measure of protection against mosquito bites might be practicable, it must, on the whole, prove hopelessly inadequate. At present, the Professor pins his faith to quinine both for prevention and by way of treatment, so that, from his point of view, no progress has so far been affected in this direction.—*The Medical Press.*

MEDULLARY COCAINISATION.

The induction of anæsthesia during labour, by means of the injection of solutions of cocaine into the spinal canal, is attracting considerable attention in the United States just now. The method is seriously discussed at the societies, and the medical journals discuss its merits with a calmness suggestive of benignant approval. In spite of the glowing accounts given by those who have taken up this new fad, we still hope that no haste will be shown on this side of the Atlantic to follow their example. We fail to discern any tangible advantages over anæsthesia by chloroform or ether; the drawbacks are numerous, and the risks are necessarily great, so great indeed that one is surprised to find men willing to risk so much in exchange for so little. The immediate sequelæ of the operation—nausea, headache, vertigo and general prostration, are always more severe and of longer duration than those which follow the administration of chloroform or ether, and instances are on record in which they have lasted as long as eight days, and others in which the injections were followed by rigors, fever and death. We do not hesitate to declare that an obstetrician or surgeon who should employ this method with an unfortunate result would thereby incur the most serious responsibility, and we cordially concur in the remark of the editor of the *New York Medical News* that "for the present we must regard medullary narcosis not as an accepted fact, but as something still in its chrysalis stage."—*The Medical Press.*

TYPHOID FEVER.

Diet.—In the vast majority of cases of typhoid fever, milk is the safest and most satisfactory diet. As to the quantity required, it may be put down for an adult at from four ounces as a minimum to eight ounces as a maximum every two hours. If there is diarrhœa, the milk should be boiled or peptonized. If the stools contain fragments of undigested casein, the quantity of milk ingested is too large and must be reduced. Should the use of the smaller amount be followed by similar evidence of indigestion, dilution with water or carbonated water should be practiced, or peptonizing again employed. Rich milk should always be avoided.

The first condition which may demand a deviation from the milk diet is an inability of the patient to take milk, either because of its disagreeing with him, or because of some insuperable prejudice against it.

A second effect of a milk diet which sometimes demands deviation from it is an increase in the tendency to constipation, which sometimes occurs in typhoid fever and which undoubtedly milk favors. In such cases milk should not be boiled. The tendency may be further counteracted by the addition of buttermilk, of animal broths,—particularly chicken-broth,—or beef-juice and the various forms of peptonized foods, either liquid or reduced to the liquid form by the addition of hot water. Should evidences of inability to assimilate milk continue to present themselves after reducing the quantity to reasonable limits, there is no more satisfactory nourishment than albumin-water, which consists of the whites of eggs mixed with water in varying proportions. The whites of two eggs to a pint of water may be considered an average proportion. A little lemon-juice—a fluidrachm or more—may be added to the pint as a flavor, or the same quantity of brandy or whisky.

The occurrence of hæmorrhage calls for an immediate reduction in the amount of food. The reduction should be positive, and it may be that for a number of hours it is better to give no food at all. When total cessation of food is not deemed necessary, the quantity of milk may be reduced to half an ounce or an ounce every two hours until the danger of hæmorrhage has passed away. The same is true of food in perforation of the bowel.

Most important are correct notions as to the transition from the diet of one actually ill from typhoid fever to that suitable to convalescence. An arbitrary rule of which it may be said that, if it errs, it errs on the safe side, is to adhere to liquid food in the shape of milk or broths, beef-

juice, or albumin-water, until the temperature has been normal one week. Then a single soft-boiled egg may be allowed. If nothing happens in twenty-four hours after this, an egg daily may be allowed. If after two or three days everything goes well, a small dish of very soft milk-toast is to be permitted. If all continues well, a small quantity of boiled rice or of strained, well-cooked oatmeal is added. Next a small piece of steak may be chewed, or, if in season, two or three small raw oysters. And thus one article of food is added after another until a reasonable diet is taken. Chicken is one of the last foods allowed. Even earlier than at the end of a week of normal temperature a raw egg may be given mixed with milk, or perhaps a little sherry or whiskey to flavor it if the patient complains of being hungry or it is thought he is not being sufficiently nourished:—James Tyson* (*Penn. Med. Journ.*)—*Monthly Encyclopedia*.

SURGERY.

IN CHARGE OF

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EAR VERTIGO CHRONIC.

C. H. Burnett, in the *Philadelphia Medical Journal* for September, 1900, writes on the treatment of this condition. He considers it due to mechanical causes, consisting chiefly in an impaction of the stapes in the oval window, and that liberation of the stapes with removal of retroaction force will cure the trouble. In doing the operation he considers that general anesthesia is necessary, for the reason the cocaine is not sufficient to cause complete relief from pain ; besides, is liable to produce an infection. The external canal and the membrana tympani should be sterilized by a solution of mercury bichloride (1 to 5000), or a formalin (1 to 1000). He illuminates the auditory canal by means of an electric head-light held on the forehead and run by a small portable storage battery made for the purpose. When the membrane is intact, as it is, where the trouble is due to a chronic catarrhal otitis media, the initial incision is made with a delicate knife. Beginning close behind the short process of the malleus, he

follows closely the periphery backward and downward until he reaches a point below the line drawn horizontally through the umbo of the membrana. Little bleeding, as a rule, will occur. The flap made by this incision is pushed inward toward the promontory by means of a probe armed with a small piece of sterilized cotton. If there is no bleeding, the incus-stapes joint is seen as soon as the flap is pushed inward. If there is bleeding, it must be mopped away with sterilized mops on a cotton holder. The incus, now in plain view, should be disarticulated from the stapes by drawing the incus outward and downward by means of an incus hook-knife passed behind its long limb. When this is done the long limb of the incus is grasped by special forceps and drawn cautiously downward and outward into the auditory canal, and then removed entirely from the ear. This accomplished, the operation is finished. The meatus is then mopped out and packed with sterilized cotton for twenty-four hours or longer, unless the cotton gets moist with the blood or serum. If the latter occurs, the cotton should be removed and dry cotton replaced. There is no after-treatment.

In purulent cases the mode of operation is different. In these cases the membrana tympani is already perforated, and the ossicles, if still present, are plainly visible. The incus should be detached and removed first, and then the remnant of the diseased membrane and malleus should be completely incised. In such cases the hemorrhage is quite free, and hence delays the operation. After the operation the ear requires syringing with bichloride (1 to 5000). The ear should not be stopped with cotton, but allowed to discharge. The subsequent treatment is that of chronic otitis media purulenta.

TREATMENT OF LACERATED WOUNDS.

The wound is cleansed with soap and water without much scrubbing. A large piece of cotton, wet with bichloride, is laid upon the wound for a few minutes while the report of the case is being taken, after which the wound is revised, if lacerated. Careful examination should be made at the first dressing and the extent of the injury accurately noted. If the tendons or nerve trunks are severed, they should be at once united. In cases requiring tendon or nerve-suture a general anæsthetic should be given. In nearly all other cases it is unnecessary; either no anæsthesia or local anæsthesia may be used. In the revision of the wound just as little as possible of the lacerated tissue should be cut away. It is better to dress the wound with doubtful tissue remaining than to sacrifice some that might have been saved.

When in doubt, no finger should be sacrificed without first giving it a chance to be saved.

It is personally an almost invariable rule never to suture a lacerated wound. If suture material is required, silk-worm gut should be used. Instead of suturing the wound, it is brought in apposition as nearly as possible and held there by a wet gauze bandage, the bandage being wet in a solution of corrosive sublimate, generally 1 to 1000. After the parts have been brought together by a gauze bandage, the wound is dressed by applying very profuse dressing of gauze and cotton, all wet with bichloride solution. Wet from moist is distinguished by having the former saturated and the latter wrung dry. A wet dressing should always be used for the first dressing, and if at the next dressing there are no signs of infection a moist dressing may then be used. If dermatitis is present a dry dressing should be used. Whenever the laceration is near a joint the lacerated part should be put at rest, either by a splint or by fixation to the body.

The first dressing should remain on, unless there are indications for its removal, at least two days. If there are no indications of sepsis, a new dressing is quickly applied. The wound is dressed about every second day with a moist dressing, unless granulations make their appearance, when a dusting-powder may be applied. Boric-acid powder being most efficient, dry dressing and sterile gauze are used from now on until the wound is healed. In the later stages of healing, when the danger of infection is practically over, the patient is often directed to remove the bandage and bathe the wound for ten minutes in very hot water and then reapply the sterile gauze, this to be done twice a day. W. E. Lower (Bull. Cleveland Gen. Hosp., April, 1900). — *Monthly Cyclo-pedia of Practical Medicine*.

SPRAINS.

Treatment.—Pressure is usually applied by bandage, but there is an intelligent and a non-intelligent method. If an ordinary bandage merely be bound round the joint, the chief part of the pressure is made on the prominence of bones at the joint, but pressure must be made so that it is brought to bear evenly on all parts of the capsule which can be got at. For example, in the case of the ankle-joint, a bandage around the ankle merely presses on the external and internal malleoli and on the tendo achillis behind. But, now, if three or four layers of cotton-wool be placed on the joint with a little additional amount in front of and behind the internal and external malleoli and the bandage be then applied, the cotton-wool sinks into the various hollows and effectually

compresses the distended capsule. So that, if the sprain be seen within the first two or three hours of its occurrence, the following treatment should be carried out. Apply cold vigorously for from about ten minutes to a quarter of an hour, either by pouring cold water over the joint or by the application of ice or spirit lotion and then wrap the joint round with lint or other suitable material soaked in cold water or spirit lotion, put on the cotton-wool in the manner just indicated and place the joint in such a position that there is at least potential cavity for effusion to be poured into and firmly bandage the part.

During the period of quiescence the same line of treatment should be adopted. But when the second attack of pain ensues and it is becoming more severe, the application of cold is not of much value. The right thing to do is to apply heat. The joint should be kept at rest and pressure should be maintained on it by cotton-wool and a bandage, since well-directed pressure also assists absorption.

As a rule, most joints are rested too long, and at an average of three or four days after the swelling has subsided movement of the joint should be commenced. The direction of the movement is a most important point. One can ascertain by the position of the tender spots and by the distribution of extravasated blood which part of the joint has been most injured. Take, for example, injury to the external lateral ligament of the ankle; no one would be so unwise as to invert the ankle as a part of the early movements, but would flex and extend and carefully evert it so that while moving the joint he would be in no way interfering with the healing of strained and of ruptured ligaments. If the patient have a tuberculous tendency or a gouty or a rheumatic-gouty history, he should rest much longer than should a patient with an ordinary history.

When the amount of swelling is very considerable, hot applications and rest are not sufficient. The best thing is properly applied friction. In rubbing the parts it is always advisable to begin to rub that part of the swelling which is most distant from the joint. Together with rubbing, frequent application of hot water and gentle movement should be carried out. If, after ten days' treatment on these lines, the thickening about the joint has not disappeared and there still remain tender spots on moving the articulation and on pressure, counter-irritation by blisters is called for. As a rule, one may say that in a fortnight or three weeks with the above treatment a severe sprain will cease to give rise to trouble and inconvenience and the patient can go about with comfort. Sometimes, however, it happens that, on the patient attempting to use the joint, acute pain sets in. The

treatment is absolute and complete rest, which is easily effected by means of a plaster of Paris application, and from four to six weeks is not too long a period to keep such a joint entirely at rest. A. H. Tubby (*Lancet, Monthly Cyclopaedia*).

THE SURGICAL TREATMENT OF VARICOSE VEINS.

John O Connor (London *Lancet*), Senior Medical Officer British Hospital, Buenos Ayres, recommends a method of treating varicose veins by extirpation of the diseased portions of the vein or veins, with primary ligation of the internal saphenous veins at the saphenous opening. W. H. Bennett and F. A. Southam express satisfaction with the results obtained from similar treatment. O'Connor describes his operation in the following manner: "The operation which I have practiced during the past four years is as follows: The limb having been shaved and disinfected from Poupart's ligament to the ankle, a two-inch incision is made over the saphenous opening, and the internal saphenous vein is doubly ligated and divided; if no varicosity is present above the knee the wound is closed and dressed at once with dry sterilized gauze. If the femoral portion is affected the vein is dissected up after ligation at the saphenous opening, and its branches are seized with pressure forceps and ligated. Generally, if varices are present above the knee, there are also some below, and when such is the case the incision is prolonged downward directly over the vessels, until the lower limit of the disease is reached. In the last case on which I operated I had to make an incision 27 inches long, through which I removed 43 inches of diseased internal saphenous vein and branches. If the varices do not extend above the knee, after occluding the saphenous trunk as described above, an incision is made over the affected portion, a ligature is applied above and below and the whole intervening mass is removed by dissection. All branches are caught up by pressure forceps, and when the main channel is removed they are ligated with fine catgut. As frequently the external saphenous vein is also affected, its varicose condition is dealt with in a similar manner. To some this plan may appear formidable, yet, if the internal saphenous is primarily ligated at the saphenous opening, there is little danger of embolism, etc. I have also employed this method for removing thrombose veins occurring after and during pregnancy with most satisfactory results, and in six cases of phlebitis I have found extirpation concluded the matter.

In closing these long wounds I consider the blanket suture recommended by Cheyne and Burghard most useful, as it can be rapidly inserted, and does not strangle the tissues like the old continuous suture.

Therapeutic Notes.

ACUTE RHEUMATISM.

A useful lotion to be applied to the inflamed joints on warm lint is that of Dr. Fuller :

R Tinct. opii	dr. i
Potass. carbonatis.....	dr. ss
Glycerini.....	dr. ij
Aquæ.....	dr. ix

The dressing should not be covered by any impermeable material.—*Amer. Text Book of Applied Therapeutics.*

SPRAY FOR A ROOM OCCUPIED BY A CONSUMPTIVE.

Free ventilation should be used in addition.

R Guaiacol.....	3 ij.
Eucalyptol... ..	3 ij.
Menthol.....	3 i.
Thymol.....	3 ss.
Ol. gaulther.....	3 vij.
Ol. memthæ pip.....	...q. s. ad. fl. 3 i

—Dr. O. F. Baerens, *Regular Medical Visitor.*

RETENTION OF URINE.

R Extracti opii.....	gr. ij
Extracti hyoscyami.....	gr. j
Olei theobromatic.....	q. s.

M. Fiant suppositoria No. ii. Sig.: Introduce a suppository into rectum and immerse body in hot bath for half an hour. *Indications* : Used in retention due to swelling and inflammation of urethra in gonorrhea. After the opium and hyoscyamus have been absorbed a brisk saline purge should be administered and leeches applied to the perineum.

Jottings.

PARALYSIS AGITANS.

The drugs that are in use for paralysis agitans, and from which some benefit in dissipating symptoms and fulfilling indications may be expected, are hyoscyamus and duboisine, Indian hemp, opium, hematogenous agents (such as arsenic and iron), and occasionally gelsemium and veratrum viride. Of these the most important by far are the first mentioned. Given hypodermically, which is the preferable way when possible, or by the mouth, they promptly mitigate the severity of the tremor, and have a pronounced tendency to relax muscular rigidity. They are both powerful toxic agents, and must, therefore, be given with care.—*Drs. Joseph Collins and L. F. J. Muskies, in N. Y. Med. Jour.*

FOREIGN BODIES IN EAR.

I have found no object in the ear which could not be syringed out. But the fountain syringe is not the instrument with which to do it.

The *sine qua non* of success is a much stronger current of water than the fountain supplies. A good strong piston syringe, used by aurists for this work, is about the best to be had. A good quality, high-grade Davidson's syringe, however, gives quite a strong stream, and answers all requirements in most cases. A good, strong stream is the requisite to success; yet this is not all. I have syringed faithfully with a good instrument without success until I put the auditory canal on a stretch by catching the back of the ear between thumb and finger, and pulling outward and upward, when the object would immediately pop out.—*Amer. Practitioner and News.*

PERSISTENT VOMITING.

Mitchell has used cold water in the treatment of persistent vomiting with much success. He applies to the epigastrium towels wrung out of ice-water, which are changed every minute until the vomiting ceases. The treatment will be successful usually in fifteen or twenty minutes, and may then be discontinued, to be resumed if necessary. By these simple measures he has succeeded in stopping dangerous vomiting in a large number of instances—after childbirth, for example, when medicines and other external applications have failed to give relief.—*Vir. Med. Jour.*

NUX VOMICA.

Nux vomica used specifically becomes an invaluable remedy. Five drops of nux in half a glass of water, a teaspoonful every hour or two, in atonic gastric and intestinal troubles, tongue coated pasty yellow, pale; pale mucous membranes, nausea, vomiting; acute pain in the small intestines; acute pain at the umbilicus, with pale circles around the mouth; general inactivity, indisposition, feebleness. These are the indications for this remedy.—*Chicago Medical Times.*

PUERPERAL CONVULSIONS.

Subcutaneous or rectal injections of normal salt solution will save life. A hot salt solution thrown into the transverse colon had the most instantaneous effect on a convulsed patient I ever saw. She had been in convulsions for four hours, and after using the hot salt water (one-half gallon), her kidneys acted, she began to sweat profusely, relaxation was complete, the strain taken off the nerve centers, and the lady was restored to her family, and to-day is a happy wife and mother.—*Dr. John F. Watson, in Medical Council.*

DR. Stephen Harnsberger, in the *Philadelphia Medical Journal*, recommends as an excellent remedy in a "cold" the administration of 30 grains of Bi-Carbonate of Potash every four hours in a glass of milk or cold water. The patient should rest in bed for a couple of days and live entirely on a liquid diet.

PRIVATE WARDS QUESTION.

To the Editor CANADA MEDICAL RECORD.

An article in the last issue of "Montreal Medical Journal" on this subject is so misleading that I venture to call your attention to some of the statements contained therein.

I would like to say, first, that I have not been associated with, or attended the meetings of the mover and supporters of the resolution which led to friction in the Medico-Chirurgical Society, that it concerns me very little personally whether the private wards of all the Montreal hospitals are opened or not, for during the past twenty years of my practice in this city I have been fortunate enough to obtain all the private ward accommodation that I wanted, directly or indirectly. Hence, I may be given credit for discussing this question with some degree of impartiality, and shall

attempt to view the abstract question on its merits, pure and simple.

The writer of the article says: "Let us consider this question in the light of plain facts and common sense," and, while fully in accord with the proposed basis of argument, what follows in the article, when viewed from an impartial standpoint, seems widely divergent from such a basis. He says that "the mover of the resolution has an extraordinary misconception of the real position of the medical profession in regard to public hospitals." If the view of this question be restricted to the narrow horizon of Montreal hospitals, then the accusation would hold; but I think it can be proved to any unbiased mind, "in the light of plain facts and common sense," that the writer of the article referred to is the man who labours under a wonderfully perverted view of the real position of the profession in the matter.

To enable us to judge fairly, let us look beyond our own immediate circle and see how this question is regarded outside of Montreal. I undertook, when the subject was first mooted, to correspond with most of the largest hospitals as far south as Baltimore and as far west as Chicago. The official replies received from these institutions, admittedly the largest and best on this continent, are as follows:—

Toronto Genl. Hospl.—We admit outside physicians in good standing to treat their patients in our private wards.

Buffalo Genl. Hospl.— do do

Presbyterian Hospl., Chicago.— do do

Harper's Hospl., Detroit.— do do

Bellevue Hospl., New York; Massachusetts Genl. Hospl., Boston and Cook County Hospl., Chicago, are all free hospitals and have no private wards.

The following exclude outside physicians from their private wards, viz:—Johns Hopkins' Hospl., Baltimore; St. Luke's Hospl., New York, and the University of Pennsylvania Hospl., Philadelphia.

Permit me to quote extracts from two private letters—
Dr. Casey A. Wood, of Chicago, formerly of this city, a graduate of Bishop's College, and a well-known authority on Ophthalmology writes: "When I came to Chicago about the same state of affairs obtained with reference to public hospital service as you inform me is prevalent in Montreal. Now, with perhaps one notable exception, every institution is open to any reputable physician. Even in the case of hospitals controlled by medical schools, an outsider in good reputation is allowed to bring his private patients into the wards and make use of the operating room if he so desires.

"In some of the larger hospitals the private wards only are "open."

Dr. Heyd, of Buffalo, a McGill graduate, now twenty years practicing in that city, writes :—"You are going through "just what every large city has fought out, etc."

Considering these statements, Mr. Editor, and from what information I can glean elsewhere in smaller towns, it seems pretty clear that the great majority of hospitals on this continent open their private wards to reputable outside practitioners, and that, as far as Montreal is concerned, we are only a decade behind the age in this regard. The three hospitals quoted, as opposed to this liberal spirit, are somewhat of the nature of "close corporations," and, having large revenues, do not aspire to the position of a popular charity. But we know that even the large institutions which maintain the "open door" policy have also immense vested interests which are safeguarded by some of the most prominent citizens in the various towns where these hospitals are located, and, with this knowledge, is it not reasonable to suppose that "common sense" enters into the management of them.

Regarding surgical cases, I think it would be a risk to give all and sundry, who might apply for it, the use of a hospital operating room. There are a good many operators, but it takes ten years of hospital work to mature a good surgeon, so that in this direction certain restrictions would not be objected to by fair-minded men. Allowing the use of operating rooms is not a novelty even in this conservative town, for outside surgeons are frequently given the facilities of operating in both the Hotel Dieu and Western Hospitals, and thus far the result has been general satisfaction.

The statement that hospital management would be interfered with and hampered by opening private wards is too absurd to call for reply, in face of the many years' experience in the great institutions where the privilege is granted, and in view of the fact that whoever treats a patient in a hospital private ward, be it an outsider or a member of the staff, must conform to all existing hospital rules.

Trusting that the foregoing data will at least convince all unbiased minds that the question is a fairly debatable one, and that it may be conceded, I have discussed this subject strictly within the limits of "plain facts and common sense," believe me,

Faithfully yours,

GEO. T. ROSS,

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Editorial.

CLASSICAL EDUCATION FOR MEDICAL STUDENTS.

There are many in the medical profession to-day who question very much the wisdom of young men who desire to become physicians devoting so much of their school training in the acquisition of Latin and Greek. No one who gives the matter careful consideration, unless unduly prejudiced, but must admit that it is quite possible to become a skilled physician and surgeon without having devoted a great deal of attention to the dead languages. This subject has been brought prominently before the profession of Great Britain by a lecture delivered at the opening of the present session of the University College of South Wales by Sir John Williams, who discussed the question from practically every standpoint. He said there was a time when a knowledge of the dead languages was an indispensable preliminary to the acquirement of information of any kind, but that time is long past. He asks, "What is the value of Greek and Latin to a professor of the art of medicine?" To this query he replies in the words of a distinguished scholar: "As to doctors, can we gravely admit that they ought to understand the language in which their prescriptions are written, and that they find it instructive to read Galen and Hippocrates in Greek? To men of science it is pointed out that

their ever-increasing technical terminology is systematically formed from Greek and Latin words. This is true, and it is also true that a man of science might obtain a perfect grasp of this terminology by means of a list of words that he would learn in a day, and the use of a dictionary that he might acquire in a week." The advocates of a classical education say : * * * "However, it may be necessary to know Greek and Latin in order to understand English, to develop the mental faculties and to gain general culture." Again, "if we do not teach a boy Latin or Greek, we cut him off from the highest literary enjoyment, and we prevent him from developing his taste by studying the best models."

To all these arguments Sir John Williams, M.D., says "it would avail little to call in question the surpassing excellence of ancient literature. But it will not be denied that in the English, French and German languages there is sufficiency of good literature to fill the leisure of a person engaged in any active calling, a sufficiency of work calculated to give a high kind of enjoyment and to cultivate very adequately the literary taste. And if such a person was ever visited by a painful hankering after the time-honoured volumes that were sealed to him, he might console himself by taking note how often his contemporaries who had enjoyed a complete classical education were in the habit of taking down these masterpieces from their shelves. For I cannot help thinking that classical literature, in spite of its enormous prestige, has very little attraction for the mass of even cultivated persons at the present day."

"The fact seems to be that with comparatively rare exceptions a classical education is pursued not for the culture which it gives, but in order to acquire the instruments for special pursuits in after life, such as theology, philology, history, archæology and the profession of teaching. Those who prepare for such pursuits specialize from the first, for they devote themselves from the beginning of their education to gain command of the instruments with which they will work in after life, while those devoted to science are made to learn that which is of little or no use to them in their after pursuits." To a lad destined for the medical profession, Sir John Williams says, "what command does he acquire over

the Greek and Latin languages. Greek is not now compulsory, while the knowledge of Latin demanded does not enable him to read the easiest Latin book, except with difficulty and the aid of a dictionary. What then should a boy destined for Medicine learn. I should say that, in addition to those subjects generally taught in schools, he should have a thorough course of English language and literature. This will do more to train his intellectual faculties, to give him a command of language, a vocabulary, a taste for good literature, and a culture far larger and better than he can obtain by acquiring an elementary knowledge of Latin, which will be of no use to him, is too scrappy to be a source of intellectual enjoyment, and which in short will be forgotten; French and German should also be learned. I believe the power of reading both languages with ease could be acquired in the time now devoted to learning Greek and Latin. The knowledge of these two modern languages is essential to a practitioner * * * for the work done in the laboratories and hospitals of France and Germany is of such a high order that no one who is ignorant of it can be considered abreast of medical knowledge."

Writing of this lecture the *Dublin Medical Press and Circular* says: "We are pleased that one occupying so conspicuous a place in the profession should have raised his voice against an indefensible adherence to an anachronistic system of education," and in this expression of opinion we are inclined to agree.

The proprietors of Lactopeptine, Liquid Peptonoids and Haemaboloids are about to publish a volume of 64 pages, entitled "Facts and Figures, Medical and Otherwise, compiled from the Last Census of The United States." Fully one-half of this volume (32 pages) is made up of full-page colored lithographic maps and schematic diagrams, illustrating in a thoroughly clear, concise and graphic manner the most interesting and important subject matter, so that the reader can comprehend and appreciate it at a glance.

The following are some of the more interesting and important statistics thus graphically illustrated: "Accessions of Territory"—a map of the United States, showing, by

means of contrasting colors, our original territory and subsequent accessions, with the dates, amounts paid and from whom purchased or ceded; "Distribution of Population by States"—a map similarly vari-colored, showing at a glance the comparative density of the population of each State and territory, "Increase and Decrease of Population, 1890-1900"—illustrating the percentage of increase of each national subdivision; similar maps of Cuba and Porto Rico, respectively. Of medical and climatological interest are maps and diagrams illustrative of the comparative mortality of the various infectious diseases in the twelve principal cities of the United States; diphtheria mortality of New York, Massachusetts, Philadelphia, England, London, Chicago, Berlin, Paris, etc., showing graphically the pre- and post-antitoxine death rate; mortality from anesthetics; ratio of deaths to inhalations; maps showing variations of altitude, sunshine, rainfall, etc., of different sections of the United States; schematic design showing comparative elevation above sea-level of the principal health resorts, with climatological and meteorological data relating to each. Other attractive charts represent the division of the population of each State and territory as regards city and country dwellers; color, race, etc.

Those of our readers who desire to receive a copy of this most useful book must apply to the New York Pharmacal Association, Yonkers, N. Y., U. S.

A DISGRACED AMBULANCE CORPS.

In February, 1900, fifty-eight men, including six physicians, styling themselves "the Chicago Irish-American Ambulance Corps," left that city to help the Boers in the Transvaal. One of the men went as a nurse, the other fifty-one were "Bearers." Before starting, each of the fifty-eight men went before a Justice of the Peace and made affidavit that he was going to South Africa, not as an ally of the Boers, but as an ambulance man, and each man pledged himself not to fight. They were given a red cross flag, and were recognised as a Red Cross Auxiliary. The six physicians and the nurse adhered to their pledges, but all the others entered the fighting rank of the Boers just as soon as they reached the

Transvaal. Some of them were killed; some were captured, and a few are still fighting. The rest, having escaped, returned to the United States a few weeks ago, and were very coldly received; instead of congratulations they received reproaches for having perjured themselves.

OBITUARY.

Dr. James Macleod, of Charlottetown, died on the 22nd of December last, after an illness lasting eight months. He graduated from McGill University in 1873, and soon took a prominent position among his confrères on the Island. He was greatly esteemed, and his loss is a great one to those among whom he practiced.

Dr. Edward Farrell, of Halifax, died on the 1st of January last. He graduated from the College of Physicians and Surgeons of New York in 1864. After graduation he served as a House Surgeon in Bellevue and Charity Hospitals, and then established himself in practice at Halifax, where he quickly gained a reputation as a surgeon of more than ordinary ability. In 1899 he attended the International Congress at Berlin as the delegate of the Dominion Government. His report of that meeting was very careful and exhaustive and worthy of the man. At the time of his death he was Professor of Surgery and Dean of the Medical Faculty of Dalhousie University. His age was 57 years.

PERSONAL.

Dr. F. J. Shepherd, Professor of Anatomy, Faculty of Medicine, McGill University, Montreal, has been elected a Vice-President of the Cuban Medical Congress and President of the section of Pathology. The congress will meet in Havana in the early part of February.

Dr. Oscar F. Mercier, of 144 St. Denis Street, Montreal, has been appointed Surgeon to the Notre Dame Hospital in place of the late Dr. Brosseau.

Sir James Grant, M.D., of Ottawa, has been elected President of the Canadian branch of the St John's Ambulance Association in place of the late Sir Alexander Kirkpatrick.

Surgeon Major C. W. Wilson, of the Second (Service) Battalion of the Royal Canadian Regiment, who has returned from service in South Africa, was entertained at dinner on the 21st of December at the St James Club by a large number of his professional brethren. The chair was occupied by Dr. F. J. Shepherd and the vice-chair by Dr. Roddick, M.P.

Surgeon-Major Worthington, Royal Canadian Artillery, of Sherbrooke, who recently returned from active service in South Africa, was, on his arrival home, received with a popular demonstration, and presented with an illuminated address. He is to be entertained, later, at a public banquet.

H. Lightstone, a medical student of Bishop's College, who went to South Africa as a private in E Battery of the Royal Canadian Battery, has returned, looking all the better for his active service against the Boers. He was promoted to be a bombardier. He was received with every demonstration of regard by his fellow students.

Book Reviews.

A Treatise on Mental Diseases. By Henry J. Berkley, M.D., Clinical Professor of Psychiatry, Johns Hopkins University; Chief Visiting Physician to the City Insane Asylum, Baltimore. With front-piece, lithographic plates and illustrations in the text. Pp. 624. New York: D. Appleton & Company.

This work, the latest on insanity, has been designed for the use of both practitioners and students, and after careful examination we find it one which can be recommended as a text-book to the student during his collegiate course. It will also prove a present help to the busy general practitioner whose difficulties in dealing with mental cases are often extreme. As to the specialist, his library would not be complete without it. No better guide to the study of this intrinsically difficult subject has yet appeared.

The book opens with a modern presentation of the more important points in the gross anatomy and histology of the cerebrum, followed by a section dealing as lucidly as possible with the general pathology of mental maladies. Next comes that portion which will prove of most interest to the majority—a clinical section of over 500 pages.

The classification of the various forms of insanity which the writer adopts differs from that of other English authors. Whereas, the classifications of older writers have been founded either on similarity of symptoms, on causation or on mixed principles, in the work now under review an attempt has been made to form a classification on the morbid anatomical appearances. This is an

advance in the right direction, and the author has gone as far as possible in the light of present attainments. The pathological changes in the nervous system to which the many phases of insanity are due should form the basis of any scientific classification. The paucity of our knowledge of pathological facts is shown in his first group, where such prevalent forms of psychical disturbance as melancholia and mania have to be placed under the heading of "insanities without ascertainable alteration of the brain substance." The other groups, however, tend to justify the classification selected. Thus we find general paresis under "insanities consecutive to organic lesions of the cerebral substance," insanities of the puerperal period under the sub group of "insanities following bacterial and toxalbumic poisoning," and paranoia under "insanities of the psychical degenerate."

As no two books follow the same classification, it is not a drawback to the usefulness of this work if the reader is not in sympathy with the one chosen by the author. The index is complete, and the practitioner seeking a guide when necessity arises may with ease find helpful material under the various heads with which he is more familiar. Symptoms, treatment and prognosis are all dealt with in a masterly way.

While many of the chapters necessarily cover the ground common to most works of the kind, in a style that will fix attention, there is much that is new in the field of mental alienation to be found in the pages devoted to the sensile psychoses, the insanities following bacterial and toxalbumic poisoning, the febrile psychoses and those following auto-intoxication from the intestinal canal, etc. Such material must prove of great value and special interest to the physician in general practice, and seems as complete as any in the present day can be.

The work throughout convinces the reader of the practical acquaintance of the author with the subjects of which he treats, and the student can procure no more serviceable book in our language for use both before and after graduation.

The statement in the prefatory note regarding "the absence from English medical literature of a comprehensive practical work on mental diseases" we think, is at least, open to argument, but perhaps we could pardon it in a writer of United States origin if in future he would exchange for more modern English terms such rare words as "furibund," and "insults" (applied to epileptic fits), and such a combination of letters as "nascence" for one that may be found, say, in the Century dictionary. It is the great excellence of this book that prompts us to point out these occasional shortcomings, and to express the hope that in a new edition such English words as can be readily comprehended will be used throughout. When one's attention is detracted from even such good matter by unusual words it constitutes a defect in style to be regretted.

The illustrations and colored plates which are numerous in the book show careful preparation, and materially assist in elucidating the text.

The publishers are to be congratulated on the attractive appearance of the volume.

J. V. A.

Progressive Medicine for December, 1900. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia, Physician to the Jefferson Medical College Hospital, etc., etc., assisted by H. R. M. Landis, M.D., Assistant Physician to the out-patient department of the Jefferson Medical College Hospital. Lea Brothers & Co., Philadelphia and New York.

This volume is full of most interesting articles on diseases of the digestive tract and allied organs, the liver, pancreas and peritonium, genito-urinary diseases and syphilis, tractions, dislocations, amputations, surgery of the extremities and orthopedics, diseases of the kidneys, physiology, hygiene. An interesting abstract is the solution of the anæsthetic in surgery, in which some of our present ideas are somewhat ruthlessly set aside. It has always been held, and such has been our opinion, that chloroform was the safest and best for children, and ether the best in adults. Wyeth, a New York physician of large experience, says he believes ether the safest in children. For many years he used ether in all his adult operations, but at present he uses chloroform in 75 per cent. His objection to ether is the great irritation which it produces in the respiratory tract and the difficulty in a certain proportion of cases, especially in alcoholic subjects, of producing profound narcosis. Previous to his use of chloroform, he administers $\frac{1}{4}$ of a grain of morphine and the 1-50 of a grain of atropine subcutaneously. He thinks that a combination of these alkaloids stimulates the heart and allays to a considerable extent the anxiety of the patient. Their employment is based on what he believes to be a fact that chloroform is dangerous, chiefly to the heart, especially in the early stages of administration. On the other hand, we have a paper from Dr. Blake, of Boston, in which city ether is administered more than in any other city in the world. He refers in glowing terms to its safety. Much depends on its method of administration, and the gas-ether apparatus of Dr. Bennet, a professional anæsthetist of New York, is highly extolled. By it the production of anesthesia was so easy, so rapid and apparently so pleasant. Altogether the volume is quite equal, and in some respects superior, to any which have preceded it.

F. W. C.

Diseases of the Nose and Throat, by E. L. Shurly, M. D., Detroit, Mich. Publishers, D. Appleton & Co., New York.

The well-known teacher who issues this work claims for it practical experience and observation, and on this basis appeals more to the general practitioner and student. As maintaining this standpoint, he has given special attention to Therapy. Operations are excluded as belonging to Surgery. Information is embodied which he has gleaned from the best authors of the day. The colored plates are artistic and excellent in detail, while the Formulæ at end of the book will greatly assist the busy practitioner.

We think the claims of the author well-sustained by his work, which is a worthy and valuable addition to any medical library. It is a clear, amply illustrated and well-arranged volume, besides being highly practical and trustworthy.

G. T. R.

Studies in the Psychology of Sex.—The Evolution of Modesty. The Phenomena of Sexual Periodicity. Auto-Erotism. By Havelock Ellis, 6 $\frac{3}{8}$ x 8 $\frac{7}{8}$ inches. Pages xii-275. Extra cloth, \$2.00 nett. Sold only to Physicians and Lawyers. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia.

This is a work on a subject which is surrounded by difficulties in its investigation which seem unsurmountable. It is also so thoroughly scientific that the facts, which the author seems to have unearthed, have to be considered with much more than usual thoughtfulness. Still it has much in it which is of absorbing interest to the student of those peculiar instincts, which we find developed in such varying degree of intensity in our race. The present volume contains three studies. The first sketches the main outlines of a complex emotional state which is of fundamental importance in sexual psychology; the second, by bringing together evidence from widely different regions, suggests a tentative explanation of facts that are still imperfectly known; the third attempts to show that, even in fields where we assume our knowledge to be adequate, a boarder view of the phenomena teaches us to suspend judgment and to adopt a more cautious attitude. Their special use is that they bring very clearly before the reader under varying aspects a characteristic, which, though often ignored, is of the first importance in obtaining a clear understanding of the tendency of the sexual impulse to appear in a spontaneous and to some extent periodic manner, affecting women differently than men. There is much in the book which will rivet the attention of the reader, but, to clearly take in its often ultra scientific deductions, the mind requires to devote itself entirely to what is before it.

F. W. C.

Sexual Debility in Man. By Frederic R. Sturgis, M.D., formerly Clinical Professor of Venereal Diseases Medical Department University of New York. Ex-Visiting Surgeon to the City Hospital and Blackwell's Island. E. B. Treat & Co., Publishers, 241 and 243 West Twenty-third Street New York. \$3.00 nett.

The author of this work has, for many years, devoted his attention exclusively to Venereal and Genito-Urinary diseases. He has long been considered by the medical profession in this country as an authority in this specialty, and his distinguished ability has received ample recognition abroad. This work is a noteworthy one, for in it Dr. Sturgis gives the results of his extensive experience covering the observations of many years.

"The principal reason for writing this book is to introduce to the reading medical public sundry opinions the writer holds upon sexual weaknesses in men, which, although they may be at variance with ideas generally received in this country, he is convinced from experience are correct.

"Thus in the chapter on Masturbation he has combatted the old and time-honoured belief that indulgence in this habit is the necessary prelude to both physical and mental degeneration, and, while

not glossing over the dangers which may, under certain conditions, result from the habit, he has attempted to point out the folly of the hysterical denunciations which have been heaped upon it by pseudo-philanthropists and ignorant medical men. The question of castration in the case of masturbating lunatics has been brought up afresh for discussion, and the author has frankly stated his reasons for believing that, under certain circumstances, such a procedure would not only be justifiable, but proper. He has also separated Spermatorrhœa from pollutions, aiming to show that the two are absolutely distinct and separate diseases; that Spermatorrhœa is not the finale of pollutions, but is a disease *sui generis*, the symptoms, course and treatment of which are entirely different from the latter. He has also striven to correct the foolish and ridiculous idea that the man afflicted with spermatorrhœa is foredoomed to impotence and sexual uselessness.

"In the chapter on Prostatorrhœa he has attempted to lay down the natural history and symptoms of this variety of disease, and has protested against the loose and unscientific method of regarding it as practically the same as prostatitis, with which latter disease, in his opinion, it has absolutely nothing in common."

The work is a very valuable one, and should be read by every medical man. There is no class of diseases which ought to be better understood by medical men, and it is because they are not so understood that so many fall into the hands of Charlatan, who play on the fears and credulity of the unfortunate patient.

F. W. C.

A Text-Book of Histology, including Microscopic Technic. By Dr. A. A. Böhm and Dr. M. von Davidoff, of Munich, and G. Carl Huber, M.D., Junior Professor of Anatomy and Histology, University of Michigan. Authorized Translation from the Second Revised German Edition, by Herbert A. Cushing, M.D. With 351 Illustrations. Price, \$3 50 *nett*. Canadian agents: J. A. Carveth & Co., Toronto; W. B. Saunders & Co., Philadelphia.

We have in Böhm and Davidoff's work one of the most thorough treatises on Histology yet published, and the translator deserves our thanks for rendering it into English.

In the preface to the English translation the editor says: "In the preparation of this American edition the editor has retained substantially all the subject matter and illustrations of the second German edition, although certain minor changes in the arrangement of the text seemed desirable." The American edition is, therefore, based on the German edition, which, by the excellence of its text and illustrations, has met the approval of teachers and students of Histology.

After an introducing chapter on microscopical technic, the cell and elementary tissues are studied in detail. Then the organs are considered and fully discussed. The sections on the motor and sensory nerve endings and on the spinal and sympathetic ganglia are particularly well treated and illustrated; and the innervation of glands and organs is ably presented. The glands with in-

ternal secretions receive the treatment which their importance demands.

The value of the work is much enhanced by technical directions. The methods described are useful and add to the value of the work as a laboratory guide.

A. B.

Essentials of Histology. By Louis Leroy, B.S., M.D., Professor of Histology and Pathology in Vanderbilt University, Medical and Dental Departments; City Bacteriologist to Nashville, Tenn., &c. W. B. Saunders & Co. Canadian agents: J. A. Carveth & Co., Toronto. Price, \$1.00.

The essential facts of human Histology are here collected within a limited space. The subject-matter is necessarily much condensed. Nevertheless, the descriptions of the tissues and organs, though concise, are clear and accurate.

The work is adapted to the needs of medical and dental students, for whom it is avowedly written, and the questions at the end of each chapter will prove helpful to those who might wish to revise their work, after acquiring a practical knowledge of Histology in the laboratory.

A. B.

Urinary Diagnosis and Treatment—By J. W. Wainwright, M. D., Member of the American Medical Association, New York State Medical Association, New York County Medical Association, etc. Illustrated with numerous engravings and colored plates. Pages, 140. Price, \$1.00 net.

There are already so many works in urinary analysis that the author of this little book of some one hundred and fifty pages excuses its production by saying "there is at the present time none which embodies the simplest methods of chemical and microscopical examinations with the latest deductions and theories concerning the general routine treatment of the conditions found. The clinical examination of urine is of such positive necessity to the proper and intelligent understanding and definite treatment of the various conditions found, and as the methods necessary to arrive at a positive diagnosis can be simplified to such an extent that hardly any chemical knowledge is necessary, the author gives the easiest methods of examination. He also elucidates very clearly the latest theories, and points out the up-to-date treatment required on each condition. The sixteen plates at the end of the work are beautifully engraved and some colored, and add greatly to its value.

F. W. C.

PUBLISHERS DEPARTMENT.

THE GENITO-URINARY CONDITIONS WE FIND IN THE WEAK NERVOUS TYPES MET BY SANMETTO.

Sanmetto clinically fulfils the promise of its physiological action. Hence its efficacy and seeming popularity with the profession in treating genito-urinary cases characterized by irritable, painful, frequent and scanty micturition,—conditions we find in the weak, nervous types.

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W. H. CHRISTIE, M.D.

Prof. Materia Medica and Therapeutics in the Omaha Med. Col.
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I have used Sanmetto in my practice for several years, and believe it to be a preparation of more than ordinary merit for the cure of prostatic and bladder diseases. The ethical manner in which it is put before the profession allows the physician to prescribe it, without fear of its use by the laity, in all cases where it is indicated.

Omaha, Nebr.

R. D. MASON, M.D.

Prof. of Rectal and Pelvic Surg. in Creighton Med. Col., Surg
to St. Joseph Hospital.

LITERARY NOTES.

The leading feature of *The Living Age* for April 6—the day before Easter—will be a striking and touching Easter story, "One of These Little Ones," by Princess Volkonski, translated from the Russian.

Mr. John Foster Fraser's description of "The New House of Commons," in *The Living Age* for March 16, is particularly graphic and timely.

"The Apotheosis of Anne," in *The Living Age* for March 16 and 23, is one of the cleverest short stories in recent magazine literature.

The Quarterly Review's account of "The Victorian Stage," which *The Living Age* reproduces in its number for March 16, is eminently sane and sensible, and bright withal.

The Chinese question is treated briefly, from the Chinese point of view, by Taw Sein Ko, in the leading article in *The Living Age* for March 30.

The Living Age for March 30 contains another of Mr. Tallentyre's delightful articles on Women of the Salons. The subject is Madame de Stael.

Mr. Meredith Townsend, whose article on "The Influence of Europe on Asia," is published in *The Living Age* for March 23, reaches the conclusion that Europe never has exerted any influence on Asia worth mentioning, and is not likely to.

CANADA MEDICAL RECORD

MARCH, 1901

Original Communications.

NOTE ON A HITHERTO UNNOTICED CONDITION OF THE OMENTUM IN CANCER OF THE OVARIES.

By A. LAPHORN SMITH, B.A., M.D., M.R.C.S., London.

Professor of Clinical Gynecology in Bishop's University; Surgeon-in-Chief of the Samaritan Hospital for Women; Gynecologist to the Montreal Dispensary; Surgeon to the Western Hospital, Montreal.

My attention was first called to this matter about ten years ago by the following case: I was sent for in a hurry to a woman about fifty years of age, whom I found sitting upright in a chair, gasping for breath, with a fluttering pulse and quite cyanosed. A hasty examination revealed the fact that her abdomen was tightly distended with fluid, free in the cavity, and that the first aid that should be given her was to draw off this fluid so that her heart might have room to beat. I returned in a few minutes with a small trocar, which I always employ, so as to avoid the danger of hemorrhage into the veins by the sudden removal of the supporting fluid surrounding them. After the first five minutes she felt immensely relieved, although it took more than an hour to withdraw four gallons. But long before this quantity had come away the cause of the ascites was apparent, for two large masses as large as a man's head made their appearance, lifting up the relaxed abdominal wall. Three days later I removed these tumors at my private hospital through a large incision about eleven inches long. Before closing it I tried to get a hold of the omentum to draw it down under the incision to prevent the intestines from becoming adherent to the latter, when to my surprise I found there was practi-

* Martin's Gynecology, Cushing's translation, Second edition, page 499.

cally no omentum, but only a fringe about an inch wide, apparently attached to the border of the liver. These specimens were examined and found to be carcinoma of the ovaries. This patient lived very comfortably for three months, when she died of cancer of the liver.

A year later a patient was sent to me by Dr. Struthers, of Bedford, with a papilloma of the ovaries. She and her husband and the physician were very anxious to know the prognosis. The papillomatous mass was exceedingly vascular and bled profusely on the slightest touch, but the hemorrhage was quickly controlled by tying the ovarian artery, and every vestige of the papillary buds was picked off the surrounding peritoneum. Many of these papillomatous cysts are on the border-land of cancer, but in this case I based a favourable prognosis, first, on the absence of the cachexia; second, on the absence of ascites, which I have always found present in cancer of the ovaries; and third, on account of the healthy omentum which I had no difficulty in drawing down and which was smooth and long. This patient rapidly regained her health, and has been heard from within a year as being alive and well, although it is now more than eight years since the operation.

Another case was a Jewish woman, kindly referred to me by Dr. G. T. Ross. She had a papilloma of the ovary exactly identical in appearance with the preceding one, and bleeding profusely on the slightest touch, but there was this difference, that there was a good deal of ascitic fluid in the abdomen and the omentum was shrivelled up like the first case, feeling like burnt leather, and it could not be drawn down so as to be seen. I gave a very unfavourable prognosis in this case. Although her death, a few days later, from peritonitis was of no significance as to the cancerous nature of the papilloma, yet the examination of the specimen gave undoubted evidence of this condition being present. Another case was a woman this winter at the "Samaritan," who was sent in by Dr. Caisse for an abdominal tumor. A nodular mass could be felt in the pelvis firmly fixed, and the examination of the abdomen gave dulness in front like an ovarian cyst. On opening the abdomen it was found to be full of free fluid, but the intestines could not float on it so as to

give resonance in front as in ordinary ascites, because they were adherent and bound down to the back of the abdomen. I dried out the peritoneal cavity, and decided that the case was inoperable, but I took the precaution to examine the omentum and again found one of these burnt-leather-like fringes attached to the border of the liver.

The next case was one of an abdominal tumor as large as a foetal head, sent to me by Dr. Leprohon. Her appearance was exceedingly cachectic, and she was confined to her bed for several months by almost constant and exhausting hemorrhage. The possibility of the tumor being a carcinoma of the body of the uterus was quite strong, so, after removing the tumor, I examined the omentum and found that it was long and smooth and soft and easily drawn down. If I had found it short and crinkled, as in the other cases, I would have removed the cervix, but with such a healthy omentum I gave a very favourable prognosis and allowed the cervix to remain. This patient is doing very well two months after the operation, and is rapidly regaining her colour. These are the only cases which I can recall distinctly bearing upon this question, and I have brought it before you so that others of our members who are doing abdominal work may tell us if they have noticed this condition, and, if they have not, if they would kindly note every case in which they are unable to draw the omentum down under the abdominal incision with a view to tracing the subsequent history and reporting it if the patient dies of cancer. With regard to ascites or free fluid in the abdominal cavity and the presence of an ovarian tumor, I feel almost certain that it is conclusive evidence of malignancy. Two years ago I was present at an operation by my friend Segond, of Paris, who had diagnosed a nodular tumor in the pelvis. As soon as he had opened the abdomen a quantity of free straw coloured fluid escaped, and, as I was standing close to him, and the only visitor, I ventured to remark that it was probably a malignant papilloma. He asked me what made me think that, and I replied my experience of similar cases, and after removing and examining the mass he agreed in the diagnosis and prognosis.

I have examined ten of the most likely authors in my library without finding any mention of this point, except by

Martin, of Berlin, who says: "The development of carcinomatous foci in the ovary always irritates the peritoneum to a high degree, so that ascites and chronic peritonitis are hardly ever absent. With greater frequency than is represented by authors, I have observed the presence of nodules springing up widely separated from each other and apparently independent of each other, which developed further sometimes in the mesentery and sometimes in the group of retroperitoneal glands. In these cases I have observed with striking frequency affections of the omentum sometimes in the form of a thick callous mass pushing itself like a board between intestines and abdominal wall; sometimes rolled together to a single mass in such a manner that it resembled some peculiar atypical tumor.

Selected Articles.

ASTHMA AND ITS TREATMENT.

By A. E. MAY, M. D., New Haven, Conn.

(Reprinted from *Gaillard's Medical Journal*, Sept., 1900.)

It is doubtful if any other human affection has had more widely conflicting theories advanced in explanation of the real nature and causation of the symptoms manifested than has the disease known as "spasmodic" or bronchial asthma. Dr. James F. Whittaker pronounces it "a paroxysmal dyspnœa caused by a peculiar catarrh, with spasm of the bronchi." Dr. Sidney Martin (*Deutsche Medizinische Zeitung*, July, 272) says: "Spasmodic asthma is a nervous affection and occurs primarily as well as secondarily." Williams also advocated the neurotic theory. Traub wrote of hyperæmia, Clark of diffused hyperæmic swelling and Webber of vaso-motor turgescence.

More recently, however, owing to various lesions found by pathologists in the dead room and disclosures made by physical diagnosis, the causation of asthma has been directed to organs found affected—as the lungs, heart, brain and cord; until, finally, the very existence of the disease as an independent affection has been denied altogether, and it is to-day regarded as merely a symptom of some constitutional affection.

In the etiology of this troublesome malady, therefore, modern classification recognizes only the indirect or intermediate causes; e. g. (1) those operative through the nervous system (centric excitomotor), and (2) those operative through the blood, as in gout, syphilis, renal disease, etc. The diathetic nature of asthma is a fact now quite generally accepted, the theory of Haig being that the causative factor of the symptoms, in the majority of cases, is uric acid in the blood and the high arterial tension it produces,—a condition brought about by a disturbance of the equipoise between the functions of nutrition and excretion, i. e., a faulty metabolism.

After five years of the most terrible sufferings, the writer, having carefully studied the disease, is firmly convinced that asthma is due to an abnormal biochemia of the blood, which impairs its oxygenation; that the lungs and nerves take no active part in its etiology other than the performance of their physiological duty; that the blood dyscrasias which figure most prominently in the causation of asthma are the anæmic, lithæmic and leukæmic.

About six years ago I developed asthma, which soon assumed such proportions as to compel me to relinquish active practice altogether. Attacks became more and more frequent and increased in severity,—relief coming only when I had reached an extreme degree of exhaustion. One attack followed another, and in turn was treated by every remedy known to the regular as well as the advertising physician, with only temporary relief. After many months' suffering of this character, I observed a series of prodromal symptoms warning me of an approaching attack,—such as headache, occipital pain, stiffness of muscles of the neck, muscular pains, neuralgias, great mental depression, etc., these symptoms recurring and recurring until it seemed as though there was no place for me on Earth.

I finally learned that, when a severe attack of asthma came on, a full dose of calomel followed by a draught of Hunyadi water gave me quicker and more substantial relief than anything yet I had previously obtained, and it dawned upon me that my trouble was perhaps due to deficient elimination, that my asthma was produced by a condition of lithæmia, not sufficiently marked to be called "gout," but all sufficient to account for the symptoms heretofore mentioned.

It seemed to me, after every relief obtained from the diuretic and cholagogue action of the drug employed, that I must have been suffering from the effects of certain toxins absorbed into the circulation from some portion of the alimentary tract, or, perhaps, left in the system from inefficient action on the part of the excretory organs. In other words,

my condition appeared to be that of auto-intoxication brought about probably by a defective working power inherent in the organs primarily concerned in the processes of digestion and excretion—especially the liver and kidneys.

The object, then, of treatment in asthma, should be to encourage such a mode of life as will tend to procure and maintain a normal condition of the blood. No disease in the whole domain of medicine, unless it be rheumatism, is more benefited by a proper diet, or more aggravated by an improper one, than is asthma. Those foods should be selected which are most rapidly assimilated and readily oxygenated, and first upon the list is fresh, rare beef,—roasted or otherwise. I believe that rare beef not only generates a blood favourable to oxygenation, but one that is unfavourable to the osmotic outpourings of mucus so characteristic of the asthmatic.

Baths, light, altitude, etc., are also prominent factors in curing the asthmatic. Altitude may, in many cases, be advantageously substituted for drugs. In choosing a location for an asthmatic, however, the main object, other than altitude, is to avoid malarial districts, for there is no disease more destructive to the cellular constituents of the blood than is malaria. Some eight months ago my attention was called to thialion, a remedy much lauded as a solvent for, and to promote elimination of uric acid. I used the drug four weeks, taking each morning a large teaspoonful of the salt in a gobletful of hot water, and drinking, besides, during the day, three pints of Apollinari- water.

The above constituted the whole course of treatment, the results of which were simply astonishing. For five months I have had no asthmatic seizure, no pain, no headaches, and am able to walk rapidly about with no shortness of breath nor disturbance of any character. I have since used thialion in several cases of asthma, and results in all of these instances were uniformly good. The value of the remedy would seem to lie, not altogether in its virtue as a solvent of uric acid (for there are many other such solvents), but largely in its power to enhance cellular action of the liver—incidentally increasing the flow of bile and initiating intestinal peristalsis. In other words, it not only possesses the properties of certain other remedial agents, in removing from the system the uric acid already formed; but, in addition, owing to its peculiar cholagogue action, serves as a *prophylactic* agent in preventing the formation of any more,—for, that the liver is the principal uric acid factory in these lithæmic conditions, is a fact now quite generally accepted.

In this brief paper it has not been my intention to mystify, theorize, nor idly speculate, but rather to emphasize

the value of thialion s a remedy in uric acid toxæmias, and to deal, also, with a few well-established facts in such manner that some of my friends in the medical profession may be able to cope with the advertising physician in the treatment of asthma.

Progress of Medical Science.

MEDICINE AND NEUROLOGY

IN CHARGE OF

J. BRADFORD McCONNELL, M.D.

Associate Professor of Medicine and Neurology, and Professor of Clinical Medicine
University of Bishop's College; Physician Western Hospital.

AKROMEALY AND GIGANTISM.

Hutchinson (New York Medical Journal) makes the following summary with reference to gigantism: (1) The greater part of the overgrowth is found at or near the tips of the segment crescents, as in akromegaly, differing from the latter mainly in that it is not exclusively confined to the tip of the segment or last division of the limb. (2) The facial part of the skull is enlarged out of all proportion to the cranial, particularly in the regions of the lower jaw. (3) The condition, whether it be regarded as normal or morbid, is one that distinctly tends to shortness of life, and would appear to have an average duration of scarcely more than twenty years. (4) The mental and physical vigor of the giant is distinctly below par, and his death usually comes either from a steady progressive increase of this weakness or from trifling accident, or usually mild intercurrent disease. (5) The sexual powers appear in the majority of cases to be far below normal. (6) There is a decided preponderance of males among the victims of this condition, in all of which statements there is a decided parallelism with akromegaly. Last of all, and from the point of view of this essay of greatest interest, is the fact that the one morbid condition which is peculiar to both these disturbances of nutrition, the enlargement of the pituitary body, is found to be present in a large majority of cases of both. We may conclude, until some evidence to the contrary can be adduced, that akromegaly and gigantism are simply different expressions of one and the same morbid condition; in other words, that akromegaly is a general overgrowth tendency which does not, for some reason, begin to express itself until after adult stature has been reached, and which consequently

expends itself upon these points in the body at which growth last ceased—the extremities of the segment crescents and the distal extremities of the appendages. Second, that gigantism, in a large majority of cases, is this same condition manifesting itself in childhood or before complete stature has been reached, and the growth in consequence is more symmetrical and less strictly confined to the last segment of the arches and appendages. The author reviews the literature of the subject, and says that, out of fifty-four autopsies held in cases of akromegaly and gigantism, there were only five in which the pituitary body was not enlarged. Its hypertrophy in most all cases was very manifest.—*The Fort Wayne Medical Journal Magazine*.

PREVENTION OF CONTRACTURES IN HEMIPLEGIA.

Geigel (*Die ärztliche Praxis*, April 15, 1900) speaks of the small mortality from apoplectic stroke and the great frequency of palsy of the arm and leg of one side, and the facial and hypoglossal nerves of the opposite side. Within the first few months we note considerable improvement in the direction of restoration of function, particularly of the leg, which is rather spontaneous than due to the customary electricity and massage. The arm not only remains largely paralyzed, but after a while the unavoidable "secondary contracture" asserts itself in both arm and leg, naturally to a higher degree in the former. The knee is slightly flexed, foot in equinovarus position, upper arm abducted, forearm bent at elbow, etc. Such an arm and hand are worthless for the patient, and, further, the sweating within the contracted hand sets up a very trying eczema. The contracture of the leg naturally interferes with the gait.

The *rationale* of these contractures is found in the descending degeneration along the conducting paths—at least, this is the prevalent view. Munk, however, in an article published in 1894, which is unknown to most practitioners, may have overthrown this theory. Munk experimented with apes, and came to the simple conclusion that contracture is a mere result of disuse. Whenever motion of the limb was practiced, the contracture did not appear at the specified time. When the exercise is intermitted, rigidity of the limb appears, and resumption of the movements cannot, from that time on, restore the limb. Motion is therefore a prophylactic and not a cure. Not later than fourteen days after a hemiplegic stroke we must begin passive motion for five to ten minutes daily. The upper arm should be abducted as far as possible;

the forearm, hand and fingers should be extended, the fingers spread apart, thumb abducted, the leg extended, the foot and toes dorsally stretched, and the outer margin of the foot elevated. The motions should be persisted in for months, for any intermission will be fatal to ultimate success. The patient can execute some of these motions with the sound arm. Professor Geigel assures us that he has verified this treatment in his practice, and that he has prevented these contractures from taking place.—*Medical Review of Reviews*.

THE EFFECT OF CODEINE.

The Medical Record, March 3, 1900, quotes the following from an article by Dr. G. J. Lochboehler in the Journal A. M. A., December 2, 1899: In epidemic bronchitis codeine is a valuable remedy for the relief of the harrassing pain of the cough, and when combined with one of the coaltar antipyretics the analgesic effects become more pronounced. It is a favorite drug in the cough of phthisis and chronic bronchitis and its sedative influence is highly satisfactory, clinical data having shown it to be the best succedaneum for opium. Another advantage of codeine over morphine derivatives and one of special value in bronchial affections is that the patients not only cough less, but also expectorate more easily than after taking any of the morphine derivatives. The cough-dispelling power of codeine is such as to make it indispensable in phthysical patients, and a point of great importance in these cases is that it does not impair the appetite or digestion, never produces nausea, and can therefore be used uninterruptedly for months. For the many bronchial and laryngeal neuroses, the exhibition of codeine in combination with antikamnia (antikamnia and codeine tablets) meets with well-merited sanction.

OLIVE OIL FOR GASTRIC CASES.

Personal experience with large doses of olive oil in cases of severe gastric distress noted. In the first case the young man had suffered from an injury in the gastric region, and it seemed probable that a traumatic ulcer had resulted. The pain on eating was so great as to make the patient avoid food. A wine glass of olive-oil taken before meals gave complete relief. The same remedy was then tried in other cases in which stomach discomfort was a prominent symptom. Even in cases of gastric cancer relief was afforded to many symptoms. In cases of pyloric stenosis most satisfactory results were secured as far as the alleviation of symptoms was concerned. Besides, the dilatation of the stomach

that existed began to diminish, and in some cases eventually disappeared completely. These were evidently cases of functional or spastic pyloric stenosis, and the result was most satisfactory. In some of the cases lavage had been tried for a long time without benefit, and in one or two cases with increase of the symptoms. Twelve cases of gastric catarrh were treated by this method with uniformly good results whenever the patients bore the oil well. A certain number of patients, about 1 in 20, cannot take the oil in the doses required; that is, up to about $7\frac{1}{2}$ to $9\frac{1}{2}$ ounces per day. In one or two cases this method of treatment was tried as an absolutely last resort before operation, and it proved successful. Patients who had lost so much in weight as to appear almost cachectic began immediately to gain in weight, and within a couple of months gained from 15 to 30 pounds.—Cohnheim (*Med. News*, Aug. 18, 1900).

RECTAL ALIMENTATION.

For how long a period rectal alimentation should be administered depends upon the condition necessitating it. In ulcers and irritating affections of the stomach rectal alimentations will be administered alone without any additional nourishment through the mouth for a period varying from one to two weeks, when the natural mode of nutrition will be cautiously resumed. In cases in which there is an organic obstacle within the œsophagus or at the pylorus preventing the passage of food into the intestine, rectal feeding must be carried on as long as the impediment exists (in operative cases until a few days after the operation has been performed—in inoperable cases indefinitely). Here, whenever possible, besides the enemas, small quantities of liquid foods may be given also by way of the mouth.

Shortly after the operations on the œsophagus, stomach, and small intestines, rectal alimentation must be administered for a period varying from four days to a week or ten days.

Before administering the feeding enema, a cleansing injection, consisting of a quart of water and a teaspoonful of salt, should be given early in the morning, in order to thoroughly evacuate the bowel. One hour later the first rectal alimentation may be administered. The feeding enema is best injected by means of a fountain—or Davidson syringe, or a plain, hard-rubber piston-syringe and a soft-rubber rectal tube which is introduced into the anus five to seven inches. The injection should be administered slowly, without much force. After the withdrawal of the tube from the rectum the patient is told to lie quietly and to endeavor to retain the enema. The quantity of the feeding enema may be from 5

to 10 ounces. Three to five such enemas may be given daily.

The following substances may be used as feeding enemas:—

(a) The different kinds of peptones and propeptones in the market (Rudisch's or Kemmerich's peptone, somatose, sanose), of which about 2 or 3 ounces, dissolved in 6 to 8 ounces of water, are injected. The different beef-juices (Valentine's beef-juice, bovine, Mosquera's beef-jelly, etc.) may also be dissolved in water and injected in corresponding quantities.

(b) The milk-and-egg enemas: 6 to 7 ounces of milk, 1 or 2 raw eggs well beaten up in it, 1 teaspoonful of powdered sugar, and $\frac{1}{3}$ of a teaspoonful of common table salt. Pancreatin (one tube of Fairchild's pancreatin) may be added to such an enema, which will facilitate its assimilation.

(c) Meat-pancreas enema: Leube employs enemas consisting of well chopped meat (5 ounces), fresh pancreas (2 ounces), 1 ounce of fat (butter); all these ingredients thoroughly mixed with about 6 ounces of water.

Instead of always using one and the same nourishing enema the above compositions may be alternately administered.

In conjunction with these food-enemas, injections of water into the bowel are made in order to increase the amount of fluid in the system. These injections of water for absorption are of great importance. Usually saline solutions are employed, in quantities varying from a pint to a quart, which may be given twice a day. Max Einhorn (*Post-Graduate*, July, 1900).

THE TREATMENT OF RHEUMATISM IN CHILDREN.

The treatment of rheumatism in children is a subject deserving the serious attention of the clinical pediatricist, inasmuch as it is a relatively common disease of childhood, and, furthermore, is an important one, too, when we consider that eighty per cent. of the children who are the subjects of rheumatism become affected with endocarditis. For the adult we recognize the superior value of sodium salicylate in the treatment of rheumatism, and we also use it for the child when it is affected with this same disease. The serious objection to the use of sodium salicylate in children is the fact that it usually produced gastritis in these little patients, and so its prime value as a reliable medicament is greatly depreciated. The production of any form of gastro-intestinal

derangement by a drug which is to be used for children is *prima facie* evidence that it should not be used. Our constant endeavour should be to avoid "remedies which are worse than the disease." The use of antipyrin for the treatment of rheumatic diseases of children seems to offset the loss of sodium salicylate as an anti-rheumatic in children. The dosage of the drug is as follows: Make up a solution of antipyrin, 3 grammes to 100 parts of water; of this give a dessertspoonful three times daily. Aspirin is also a promising drug² for infants and children affected with rheumatism. In addition to this drug treatment, children should be kept in bed at least eight days after the fever has disappeared.—*Interstate Med. Jour.*

TRAUMATIC HYSTERIA.

One of the most pitiable conditions with which the neurologist has to deal is that form of hysteria which we recognize as "traumatic hysteria." It is nowadays common, quite common. We see it on every hand; we hear of it very often. The laity discuss it in tones of awe and commiseration. Most commonly they mistake it for a serious injury to the brain, a local disturbance, instead of a pronounced neurotic disorder. Traumatic hysteria is that form of hysteria which is seen in people who have been the victims of some one kind of accident or another wherein a great fright or fear has intruded. It is seldom, if ever, due to a real injury of nervous tissue by mechanical force. In every case we can trace the element of fear or anxiety which precedes, accompanies or follows the receipt of a traumatism as the etiology factor in the production of traumatic hysteria. We hear of a man who has been knocked on the head by a highwayman; he is probably stunned, probably has a scalp wound, but has no fracture, no concussion of serious import; in short, had he lived fifty or a hundred years ago and had been so maltreated, he would have thought nothing of it, but would have stayed out of bed and gone about his business the next day without a thought of the extent of his injury. But the man of to-day who receives this injury is frightened, and is demoralized through fear. He recovers from his scalp wound, but complains that he is not himself; that "there's something wrong in his head." He broods over it; he cannot sleep; his family are well-nigh beside themselves with compassion for his supposed "intra-cranial" derangement, and their compassion makes his condition worse. This is a true picture of the traumatic hysteric—the man who receives his neurosis through the kindly offices of the thug; the man who, in most cases, would possibly have been better served had he been

killed outright by the highwayman, instead of being allowed to live to be "sympathized with to death" by his relatives and friends.

We say that the condition is common. It would be well and proper to state that it is frightfully common. We may explain its frequency in several ways :— First, by reason of the fact that accidents of divers order are more common now than they ever were, and that the danger to life and limb through modern invention, modern machinery for the application of mechanical principles to heat, power, etc., are more in evidence than they ever were, and that, consequently, life is not half so valuable as it was, reasoning from the standpoint of avoidance of injuries. Secondly, we know that the present generation is extremely neurotic, that neuroses of all kinds are rife with us, and that they are difficult to lose. The strongest and the hardiest of our race may pride themselves on their physical strength, but they are the class who, when once the subject of a neurotic malady, as they often become; are the worst sufferers therefrom.

We can always trace the elements of fear or anxiety that accompanies these accidents as the active factor. Consequently, in the treatment of traumatic hysteria, it must be our constant aim to make our patients "forget." Until we can bring them to that state, therapeutic efforts amount to practically nothing. They must be treated as we treat all hysterics—by suggestion. And their medicaments must be given to them in the self-same way—*i. e.*, in a suggestive way—so that they may be led to believe that something is really being done for them. Such cases, under proper treatment and conditions, are promising ones. The greatest care, the greatest amount of tact, of skill, of patience, and of strict adherence to "hysterical" methods of treatment, however, must be enforced.—*Interstate Med. Jour.*

PARALYSIS AGITANS.

The drugs that are in use for paralysis agitans, and from which some benefit in dissipating symptoms and fulfilling indications may be expected, are hyoscyamus and duboisine, Indian hemp, opium, hæmatogenous agents (such as arsenic and iron), and occasionally gelsemium and veratrum viride. Of these the most important by far are the first mentioned. Given hypodermatically, which is the preferable way when possible, or by the mouth, they promptly mitigate the severity of the tremor, and have a pronounced tendency to relax muscular rigidity. They are both powerful toxic agents, and must, therefore, be given with care.—Drs. Joseph Collins and L. J. J. Muskies in *New York Medical Journal*.

THE ACTION OF SODIUM HYPOSULPHITE UPON THE MOVABLE OXYOGEN IN THE ORGANISM.

Movable oxygen is a term applied by Professor Novi to that portion of the oxygen in the blood which exists as oxyhæmoglobin and is liberated to supply energy to the tissues, a fixed portion always remaining in the cell. The exact manner in which the oxygen is combined, and the chemical process that underlies its liberation, are not as yet fully understood. The author has investigated the influence of sodium hyposulphite upon the oxygen of the blood, and also the effect of this substance when brought into direct contact with arterial blood *in vitro*, when introduced into the stomach, when injected hypodermatically and when injected intravenously, and his conclusions are as follows : When sodium hypophosphite is mixed with defibrinated blood, in the proportion of 0.65 per cent., there is a marked and constant diminution of the movable oxygen. The diminution is not in proportion to the amount of movable oxygen previously found in the blood. but, other things being equal, in proportion to the amount of sodium hypophosphite introduced. If injected subcutaneously, sodium hyposulphite produces a diminution in the amount of movable oxygen, and the same is true when this substance is introduced into the stomach. The effect of the sodium hyposulphite reaches its acme twenty-two hours after the injection. In the cases in which the salt was introduced directly into the circulation, the effects were more rapid, and a diminution of the movable oxygen in the blood was noted within an hour of the injection.—*N. Y. Med. Jour.*

REGIONAL ANESTHESIA WITH COCAINE.

In an exhaustive article on local and regional anesthesia with cocaine and other anelgesic drugs, including the subarachnoid method as applied in general surgical practice, published in the *Philadelphia Medical Journal* of November 3, Dr. Rudolph Watas, of New Orleans, thus sums up the indications and the applications of spinal anesthesia :—

1. To adults, and to reasonable persons who have good self control, thereby excluding children, hysterical patients and the insane.
2. To patients in whom the methods of local or regional anesthesia are inapplicable.
3. To patients suffering from emphysema, advanced asthma, chronic bronchitis and other respiratory affections in whom a general inhalation anesthetic is absolutely contraindicated; in advanced cardiac cases with degenerative lesions, I would fear the possible

depressing effects of the injection and excitement on the circulation. 4. In the majority of cases in which the painful part of the operation is not likely to be prolonged beyond one hour and a half, as I would be averse, in the present state of our knowledge, to repeat a second cocaineization or to increase the total dose of the cocaine to more than .2 cgm., especially in exhausted subjects.

The danger of repeating the intradural injections to prolong the anesthesia is also one of the objections to the use of the method in ordinary labor. But its advantages in instrumental cases, as shown by the successful experiences of Dupaigne, of Louviciennes, France (who, according to Tuffier, first applied the subarachnoid method in labor, January, 1900), and of Bumm and Kreis, of Basle; of Doleris and Malartic of Paris; and Marz, of New York, cannot be doubted, especially in nephritic patients. — *The Columbus Medical Journal*.

A REPORT OF CASES OF PERNICIOUS ANEMIA WITH SPECIAL REFERENCE TO THE BLOOD FINDINGS.

In twenty cases reported by the author the diagnosis was based upon the clinical history and the physical findings, but most of all upon the blood condition. Of twenty cases twelve were males and eight females. The average age was forty-four years, the youngest twenty-four, the oldest sixty-two. No exciting cause could be found in any case. There was no special relation to the use of alcohol, nervous shock, overwork or to previous disease, excepting, possibly, in the one case in which syphilitic gumma of the soft palate occurred. The symptoms were weakness, which was constant and present, in some degree, even when the patient was at the top of the wave of improvement, and dyspnoea and palpitation occurred at some time or other during the course of the disease in every patient. Gastro-intestinal disturbance of some kind usually fermentative dyspepsia with constipation or diarrhoea, was the rule. A few cases showed a constant tendency to diarrhoea.

The nervous symptoms were frequent, especially paraesthesia of the lower extremities and headache, with dizziness, was common. Sleeplessness and restlessness occurred in the late stages of the fatal cases. The lemon-yellow tint was present in every case. In the great majority of the cases there was preservation of the body weight. Cardio-vascular disturbance was an invariable feature. In every case there was either a murmur over the heart or in the neck, and the radial pulse was weak and compressible. There was splenic

enlargement in five cases. The liver was palpable and enlarged in three cases. In only three cases were the stomach contents examined after a test meal; free hydrochloric acid was absent in all. The temperature was elevated as a rule, but fever was never high, excepting a few days before death in some of the fatal cases. A slight albuminuria occurred in five cases. The stools were negative as to parasites in all but one. In this infusoria in large numbers were constantly present and associated with diarrhoea. Hemorrhages in the skin, either petechiae or ecchymoses, occurred in the majority of cases. Retinal hemorrhages, demonstrated by the ophthalmoscope, occurred in four cases.

The hemoglobin varied from 15 to 74 per cent. (Fleischl) and the red corpuscles from 156,000 to 4,000,000. The color index in fifty-three of sixty-six observations was above normal. The lowest was 0.66, the highest 8.9. (?) Four cases showed the color index either constantly or usually low. In eight cases the low color index occurred at some time during the disease. The fall in the color index during rapid improvement took place in five of six cases, the corpuscular richness often becoming less than normal. The specific gravity bore a more constant relation to the number of red corpuscles than the hemoglobin. During rapid improvement it was noticed that there was a tendency of the hemoglobin to lag behind the other solids of the blood in their upward course. The leucocytes, on the average, were below normal. The eosinophiles showed a disposition to increase with improvement and to diminish with the failing of health, but this behavior was too fickle to enable one to formulate a rule concerning them.

The myelocytes were most abundant, broadly speaking, when the patient was low, but they appeared to be of little diagnostic or prognostic importance. These cases seem to show that the nucleated red cells are an essential feature of the disease. They were present in every case, although they often disappeared when the patient made a decided gain in health. The actual number was sometimes very large, in one case 10,336 per cubic millimeter, but more often it was small. The average number present in a cubic millimeter, with the exception of the case in which the number was so large, was 71. With this small number it often required a prolonged search to discover them in the ordinary smear. The quality of the nucleated cells seems of greater significance than the number. The regenerative forms or normoblasts are of little consequence, but the degenerative forms or megaloblasts are very characteristic. In many cases they were present, and, in fact, the diagnosis could not well be made in their absence.

Poikilocytosis was present in all cases, and in no case did

it entirely disappear at any stage of the disease, even in the period of greatest improvement.

Polychromatophilia was present at some time in all of the cases, but was not a constant factor during the course of the disease, and especially during the stage of improvement.
—*St. Paul Med. Journal.*

SURGERY.

IN CHARGE OF

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A NEW MODIFICATION OF THE OPERATION FOR APPENDICITIS, DESIGNED TO ASSURE THE INTEGRITY OF THE ABDOMINAL WALL.

This is a modification of the intra-muscular method of McBurney, which gives only a narrow field of operation situated between the anterior superior spine and the border of the rectus muscle. The author of that method wisely limited its application to cases which could be operated between attacks. Nevertheless, some surgeons have tried the method in acute cases, and have either been embarrassed by the narrowness of the field or were forced to enlarge the opening in the abdominal wall. The writer has proposed that after opening the peritoneal cavity in the McBurney fashion, and it is necessary to make more room, the enlargement should be made by lifting the inner portion of the cut aponeurosis of the external oblique muscle, either with the fingers or the back of the scissors, as far as the median line. This uncovers the anterior sheath of the rectus muscle, which is incised transversely. Then the rectus muscle is pulled strongly toward the median line, which uncovers the posterior sheath. This, in turn, is cut transversely, which extends the primary opening into the peritoneum as far as the median line. Retractors increase the space and give an extensive field for easy operation. The operation having been terminated, the incised posterior sheath of the rectus muscle, as well as the peritoneum, is closed with a row of

sutures, interrupted or continuous. The retracted rectus muscle is let go and allowed to resume its former place. The anterior sheath is then sutured with strong catgut. After this the incised wound in the external oblique is approximated and sutured. Suture of the skin completes the operation. Weir has employed this proceeding in 62 cases, in 27 of which there were unexpected complications attending the removal of a quiescent appendix. The other thirty-five cases were acute appendicitis, save one, an ectopic gestation. In the greater part of the latter cases drainage was resorted to for two or three days, by means of narrow bands of caoutchouc (not gutta serena) folded upon themselves and permitting easy removal. A provisory suture of catgut, put in at the time of operation, can be tied when the drain is removed. Up to the present the operation has not been followed by hernia, but it is too early to speak positively upon this point. The method has been adopted by several other American surgeons, notably Fowler, of New York, who has published his observations.—*Dr. P. P. Weir, New York International Medical Congress.*

THE TREATMENT OF SPRAINS AND OF SOME FRACTURES.

A. H. Tubby says that in a sprain numerous small vessels are ruptured at the moment of injury, and that there is an instantaneous out-pouring of a certain amount of blood and lymph, and that this effusion goes on for three or four hours. It is quite rational to apply cold during this period, and it is the best resource at our command. It constricts the vessels, lessens the amount of exudation, etc., so that the duration of symptoms is shortened and there is little liability of stiffness afterwards. Furthermore, the amount of effusion may also be lessened by application of pressure and the placing of the joint in such a position that its potential cavity is lessened. During the period of quiescence the same line of treatment should be adopted, for there is some quiet effusion still going on. But when the second attack of pain ensues, and it is becoming more severe, the application of cold is not of much value, since by this time the tissues are distended with blood and with lymph, and effusion has now ceased to be poured out. The right thing to do is to apply heat, as hot applications not only diminish the pain but exercise a permanent effect upon the duration and the amount of swelling in this way. When the vessels which have been injured have recovered their tone, the application of hot water or of heat in other forms promotes absorption, so that the effused blood and lymph are as rapidly as possible taken up into the blood vessels and lymph

channels. During this time the joint should be kept at rest, and pressure should be maintained on it by cotton-wool and a bandage, since well-directed pressure also assists absorption. When the amount of swelling is very considerable, hot applications and rest are not sufficient. The best thing is properly applied friction. In regard to fractures the writer lays down the following rule as to cases occurring about the elbow: "In all injuries about the elbow joint, except fracture of the olecranon, the forearm should be forcibly extended, then supinated, then acutely flexed—that is to say, the limb should be placed with the ball of the thumb of the affected limb resting against the neck on the opposite side. No splint is needed, and, indeed, is harmful, for the position can easily be secured by means of a sling passing round the neck and round the wrist." In separation of the lower epiphysis of the femur, the separated portion is usually dislocated forward and not backward, unlike the displacement which occurs in a transverse fracture of the lower end of the femur; the displacement is backward almost always in the latter case. Forward displacement of the lower epiphysis is accounted for by this circumstance—the epiphyseal line is directed from the front downward and backward so that the epiphysis more readily glides forward on to the shaft. In transverse fracture the line of fracture usually passes above the attachment of the gastrocnemius; hence the fragment is tilted backward. Reduction and retention in proper position can be accomplished by division of the tendo achillis and forcible extension, or the limb may be put up with the heel touching the buttock, or the joint may be opened and the epiphysis fixed with a steel nickle-plated screw.—*Lancet, N. Y. Med. Rec.*

OBSERVATIONS ON THE SURGERY OF THE GALL TRACTS.

W. Jones, Portland, emphasizes the following points: (1) The diagnostic value of the point of maximum tenderness on pressure, which is over the gall-bladder at or near the costal margin of the ninth rib. This point in disease of the gall-tracts corresponds in importance with McBurney's point in disease of the appendix. (2) The diagnostic value of the presence of bile in the urine excreted during or immediately after a very brief obstruction of the common duct. (3) Disease of the gall-tracts is of very common occurrence, and is liable to be mistaken for other troubles which it closely imitates. Patients with long-standing disease of the gall-tracts are poor subjects for surgical operation, and surgical interference is attended with considerable risk. In such cases it is wiser to do, first, a cholecystotomy, the simplest operation and the one

attended by the least risk, leaving more radical treatment for another time, should it become necessary.—*N. Y. Med. Rec., St. Louis Med. Review.*

FRACTURE OF THE SPINE.

Walter Lathrop, Hazleton, Pa., thus summarizes the indications: (1) In partial lesions we should operate. (2) Where the lumbar region is involved, the lesions of the cauda equina operation offers the best chance for recovery. (3) In fracture of the spinous process, lamina, or entire neural arch, operation is demanded. (4) Should immediate operation not be done, and we wait six to eight weeks, with the result that paralysis of the bladder and bowels continues, with cystitis and severe bed sores present, we may be sure that nature cannot relieve the case, and an operation is not only indicated, but demanded.—*St. Louis Med. Review.*

STITCH ABSCESES.

Don't always blame your suture material whenever you get a so-called stitch abscess. The great majority of these are not at all due to the sutures, but to the fact that there has been an infection due to the existence of noxious organisms in the deeper cutaneous layers, which cannot always be removed by the most thorough and most conscientious scrubbing. Careful washing with green soap and alcohol, followed by a large wet dressing of bichloride, applied the day before an operation, will greatly diminish the number of these generally misnamed stitch abscesses.—Howard Lilienthal, *N. Y. Med. Rec.*

TRAUMATIC JOINTS.

Homer Gage concludes his paper on this subject as follows: (1) All injuries to joints accompanied by loss of function are always attended by more or less laceration of the tissues in or about the joint. (2) The delays in the restoration of function are due, in most instances, not to any complicating diathesis, but to the changes incident to the repair of these lacerations and their effects. (3) Such delays are best avoided by an early resort to massage and active or passive motions, and are favored by too long a continuance of rest and fixation. (4) When such delays have occurred, they are best overcome by more vigorous and persistent manipulation; supplemented by the application of heat or such other agents as may best stimulate the local circulation and favor the elasticity of the tissues.—*N. Y. Med. Rec.*

TREATMENT OF INJURIES OF THE URETER.

Dr. Davis, of Omaha, in a paper on this subject presented at a meeting of the American Medical Association, said that ureteral injuries had been much more frequent than was generally supposed, and cited cases to prove this fact. Before the possibility of anastomosing the cut ureter was shown to exist, there was open to the surgeon but one of three very unsatisfactory procedures: He was obliged either to perform nephrectomy, to stitch the ureter to the skin, or to ligate its proximal end. The result of the first was never an enviable one; the second left the patient in a pitiable plight, while the atrophy which was supposed to follow the third was by no means constant. So much advance had recently been made, however, that none of these procedures were justifiable. He then described a method of anastomosis which seemed to him better and simpler than Van Hook's. Implantation into the bladder, that viscus having been freed from its attachments to a sufficient extent—after Kelly's method—to reach the proximal end of the ureter without tension, or uretero-ureteral anastomosis, seemed to him to offer a happy solution of the problem. In support of this statement he said: 1. The normal channel was thus preserved. 2. There could be no fistulæ. 3. Stenosis was not probable. 4. There was no leakage. 5. Cicatricial contraction gave no trouble.—*Med. Rec., Pacific Med. Journ.*

INGROWING TOE NAIL.

Remove all pressure from the nail by cutting away a piece of the shoe. Disinfect with hydrogen dioxide until no more "foam" appears. Apply a drop of strong solution of cocaine to the base of the ulcer. Apply a drop of Mon-sell's solution to the ulcer, then cover loosely with gauze. Repeat this process every second day until the edge of the nail is released by the retraction of the hypertrophied tissue.—Kinsman, *N. Y. Med. Rec.*

WOUNDS OF VEINS

are of importance both on account of the immediate and the remote effects they produce. The immediate troubles which have to be dealt with are (*a*) dangerous hemorrhage and (*b*) entry of air into the vein. The remote troubles are chiefly thrombosis, embolism, pyæmia and œdema of the part corresponding to the distribution of the vein. The immediate troubles are more common in connection with operation wounds, the remote troubles in accidental wounds.—Cheyne and Burghard, *N. Y. Med. Rec.*

INDICATIONS FOR OPERATION IN HERNIA

Not every case of hernia requires operation. In reducible hernia, when the patient can wear a truss with comfort and without inconvenience to him, in the performance of his necessary duties, operation for hernia is superfluous. In irreducible hernia an operation is usually indicated. The fact that the hernia is almost sure to increase in size, the pain and dragging and weakness, associated with the presence of the hernia, diminish the patient's ability for work and become indications for operation. In obstructed and strangulated hernia operation is indicated, and should be performed as soon as the diagnosis has been made. In children under four years of age, unless the hernia is strangulated, incarcerated or irreducible, operation is to be avoided, for it has been found that a large proportion of these patients recover within the first three or four years by the application of a suitable truss.—Charles B. Parker, *N. Y. Med. Rec.*

NOTE ON FITTING TRUSSES.

The retention and, much more, the curability of hernia by the aid of trusses depend upon certain principles that require to be thoroughly understood and faithfully applied, in order to insure the best results.

The hernial canal, particularly when recently developed and not as yet much stretched, is, as a rule, oblique to the surface which it underlies, its outlet having the form of a more or less elongated slit, one lip of which commonly overlaps the other. This occurs in hernias of every type, and is a fact of prime importance in their treatment by trusses.

No matter what style of truss is employed, its pad requires to press on the hernial canal in such manner as to cause the overlapping lip at its outlet to be put on the stretch in the direction of the axis of the canal and outward from its lumen. When this is done the slit will be flattened and closed firmly and smoothly, and the entire canal will likewise be in the same condition as far as it is possible to bring about such a result by the aid of a truss. If, on the other hand, the pressure of the pad tends to force the tissues in any other direction than that just described toward the outlet of the canal, the margins of the slit will be found puckered and stretched apart, preventing adhesion. Thus, in an ordinary direct hernia the writer has seen a truss so adjusted as to shove the overlapping margin at the orifice of its canal entirely off from that underlying it. The hernia was retained it is true, but in an uncomfortable and at times painful way and without

the slightest tendency toward cure. In fact, the margins of the canal were plainly puckered and kept apart instead of being smoothed, the one upon the other and brought into accurate coaptation. A very little such pulling and pushing in the wrong direction prevents the formation of adhesions, facilitating retention, and in favourable cases bringing about absolute cure.

Thus, a particular type of truss may have a fine effect in one case and fail utterly in another, the direction of pressure required in the two cases being entirely different even in hernias of the same class. Thus, an ordinary direct hernia may open obliquely through the muscles and fascia outward or inward in reference to the median line of the body, and the pressure of the pad of the truss should be directed either toward or away from that line, according to the special requirements of the case.

Proper management of the pressure on the skin and the subcutaneous fat and other tissues that are movable, upon the firmer underlying muscles and fascia in which the hernial canal properly so-called is situated, is likewise requisite. The skin and the loose tissues underlying it can readily be put upon the stretch by pulling them in any direction desired, while under the pressure of the pad of the truss, which holds them quite firmly in whatever direction, they may have been thus stretched. In this way it becomes possible to cause the superficial tissues in question to assist in the closure of the hernial canal by exerting a constant pull upon the overlapping margin of its outlet, to which they are more or less firmly attached. This disposal of these tissues under the pad is much more comfortable also than allowing them to be pressed upon and shoved in any other direction. The amount of traction thus brought to bear should be just enough to insure perfect coaptation, any excess beyond this being useless and perhaps disagreeable.

Simple as these points may seem, they are of very serious importance. In almost any case if a truss is carefully adjusted in accordance with the principles that have been indicated, and if this is always done before assuming the upright position, so as never to allow the hernia to protrude for an instant, ease of retention will be greatly increased in all cases and the percentage of cures become very much larger. The length of time required varies according to the nature of each case, but improvement will continue for two or three years, even if a cure has not resulted in that interval of time.

From the point of view indicated it is necessary to study carefully the direction of pressure exerted by trusses of different types, so as to be able to select just what is needed for each particular case. It is needful also to have the patient

return repeatedly, so that it may be seen whether every detail is properly understood. Patients who have little mechanical skill, or who are careless, need to be drilled. Sometimes also it becomes necessary to adjust pads to make the counter pressure less uncomfortable and to modify the action of the truss slightly. Such pads for counter pressure may be made and adjusted by any harness maker, and a little ingenuity in their application is often of great service. In any event there can be no very decided success in the use of trusses if the points here stated are ignored.—*Dr. M. A. Veeder in Buffalo Med. Jour.*

SUGGESTIONS ON THE MANNER OF USING PROTARGOL.

Having passed the experimental stage, it may now be safely asserted that protargol is one of the most important additions to the materia medica of recent years. Aside from its general use in the treatment of gonorrheal affections, it has to a great extent displaced nitrate of silver in diseases of the eye, ear, nose and throat. To obtain uniformly good results, attention has been lately drawn to the importance of exercising proper care in making the solutions, a point which has been specially emphasized by Professor Neisser. A clear and satisfactory solution can be secured in any one of the following ways: Stir the protargol powder into a thick and smooth paste with a little cold water, and then add the bulk of the fluid. This should be done in a glass or china vessel, using a glass rod; if in a mortar, the latter as well as the pestle should be slightly moistened with a few drops of glycerine. Protargol may also be readily dissolved by dusting the powder evenly upon the surface of the water and allowing the fluid to stand without stirring for about ten minutes. It is very essential that only *cold* water should be used in making the solutions, as with warm water the drug is to some extent decomposed, and then becomes less active and may cause irritation; for the same reason the solutions should be preserved in dark colored yellow bottles. In acute gonorrhea the average strength of the solutions ranges from 1 to 10 grains to the ounce; in chronic urethritis, up to 30 grains; in diseases of the eyes, ears, nose and throat, 10 to 60 grains; as an application to wounds and ulcers, 1 to 2 per cent. solutions and 5 per cent. ointments are in use. Unlike nitrate of silver, protargol does not stain the skin even in concentrated solution. The solutions commonly employed in gonorrhea also do not produce stains of the clothing, or, if they do, only cause slight discoloration, which can be easily removed with warm soap water; stains by stronger solutions, if recent, can

be removed with soda and ammonia ; if old, by the action of peroxide of hydrogen in the presence of ammonia.—*Therapeutic Suggestions.*

ETIOLOGY OF GALL STONES.

For the sake of brevity the author formulates his conclusions, which seem justified by a careful study of the literature on the subject.

1. A sterile foreign body does not lead to gall stone formation, though a sterilized gall stone may be penetrated by at least the colon-bacillus.

2. The contents of the hepatic and cystic ducts, and also of the gall bladder, are usually sterile.

3. The common duct not infrequently contains bacteria, a fact readily explicable by the relation of the duct to the intestines.

4. Gallstones have been produced experimentally by a number of observers with a number of organisms. Mignot failed with virulent cultures, while he succeeded with attenuated cultures, alone, or in connection with a foreign body.

5. The presence of bacteria has been demonstrated in connection with a considerable proportion of cases of gallstones.

6. The clumping of the typhoid-bacillus led Dr. M. W. Richardson to think this peculiarity might play an important role, and he produced gallstones in a rabbit by the introduction of a small amount of a clumped bouillon-culture into the gall bladder.

7. The colon-bacillus and the typhoid bacillus are the most common bacterial agents in gallstone formation.

He emphasizes the fact that stasis of the bile is a very important factor. This permits change in the reaction of the bile and favours precipitation of bilirubin calcium, increases cell-desquamation and affords a nidus for the growth of bacteria, possibly derived from the blood, or more usually from the common duct, of the intestine. His therapeutic deductions are to forestall all cases of stasis and annihilate typhoid fever.—Fred. C. Shattuck, M. D., *Philadelphia Med. Jour.*

Needles are best kept in a saturated solution of soda albolene or absolute alcohol containing calcium chloride. Lysol is very good, but hurts the needles by its colour.

THE TUBERCULOSIS CONFERENCE

Held in Ottawa, Feb. 14th, 1901.

This important gathering, made up of representative laymen as well as medical men coming from all parts of the Dominion, was opened at Ottawa on Thursday, February 14th, at ten in the morning, under the presidency of His Excellency the Governor-General, who addressed the meeting in the following words:—"When I first invited the leading members of the Medical Profession to meet me here to-day, I did not dare to anticipate anything approaching the influential gathering of distinguished men I now see before me. I am well aware that many of you have travelled great distances at much personal inconvenience, and I can only assure you of my deep appreciation of your support, and of my hope that the expert knowledge you can bring to bear on the subject you have come to discuss may not only assist to place before the public the immense national importance of the objects we have in view, but will encourage the public to unite in one common effort to defeat the evil which is so surely undermining the health of the people.

It was in September last, during the meeting of the Canadian Medical Association, held in this City, that an association for the prevention of tuberculosis was provisionally organized. The purpose for which I have asked you to assemble to-day is to establish that association on a permanent basis, also to discuss the measures best calculated to promote the object of this association.

The pith of those objects is, I think, expressed in the first resolution on the programme of to-day's meeting, and reads thus: "That it is the duty of every government, municipality and individual citizen to adopt organized methods for lessening the spread of a disease which is causing, directly or indirectly, probably one-fifth of the total deaths in this Dominion.

"How the association could best attain the aims it has in view is a matter for the experts present here to-day to consider, but whatever conclusion they may come to as to the best means of combatting the evil they have to face, the success of their efforts must to a large extent depend on the assistance and good will of the public itself. That that public should fully realize the danger which surrounds it will be one of the main objects of the association.

"The miseries of Consumption many of us know too well. The fading away of many a charming young life, the break-down of many a manly constitution; but I do not know that we have yet looked beyond our individual griefs to realize the ravages of a common enemy. Even now we

have not perhaps fully accurate data to go on, but we believe that the early settlers on this continent were a healthy race; we are proud of this health-giving Dominion of Canada, and yet we know that this terrible consumptive death rate is steadily increasing.

"I am told that ten years ago the annual deaths by consumption in Ontario were 2,400; in 1899 they were 3,405; from 1887 to 1898 they amounted to 31,699, and I believe that the annual estimate now of deaths from the same cause in the whole Dominion is between 7,000 and 8,000.

"One very suggestive and very encouraging piece of information given to me is that over the period I have just quoted to you, viz., from '87 to '98, when the consumptive death rate of Ontario amounted to 31,699, deaths from small-pox were only 21. I say encouraging, because we all know something of the now almost traditional horrors of small-pox, and can gratefully recognize what vaccination, quarantine and reasonable precautions have done for us.

"And now science comes to our aid again and tells us that, though the germs of this deadly consumption can be communicated from one person to another, or from animals to human beings, still it is without doubt a preventable disease; that with certain precautions, ascertained by modern discovery, its inroads can be arrested. These precautions the association will do its best to promulgate.

"You are fortunate in Canada in possessing an excellent system for the administration of matters of public health. You have both your provincial and Dominion machinery, the former thoroughly capable of dealing with detailed organization, whilst the latter can do everything to ward off the importation of the disease from outside, and can, so to speak, do very much to assist and direct the general policy of the campaign.

"I have no intention, gentlemen, of entering into any detailed consideration of the spread of consumption or the manner in which your future labors should be conducted. In the presence of so many experts it would, I feel, be out of place for me to do so. My personal object in asking you to meet me here to-day is to join with you, as the leading representatives of the medical profession, in pressing upon the people of Canada the urgent necessity of combatting the danger which besets them. The task before you is not an easy one, but I have no doubt you will determine that the battle must be won. Look back at the medical and surgical triumphs of the last century, and remember that we have now to a great extent passed the age of research, and stand where scientific knowledge gives us the power to act. I hope,

gentlemen, that, possessed as you are of that scientific knowledge, the work you have so patriotically undertaken may, as years go on, do much to contribute to the health and happiness of your fellow countrymen."

Sir James Grant, of Ottawa, then rose to address the meeting. In the course of his remarks he spoke in very glowing terms of the energy and devotion displayed by His Excellency, the Governor-General, in not only lending a helping hand, but in actively co operating in the work of this conference. He also pointed to the fact that the acceptance of all great scientific truths is proverbially slow, quoting as examples the facts that Antiseptic Surgery was fully twenty years leading to victory, while we are nearing the twentieth year of the discovery of the germ of tuberculosis by Professor Koch, and are only now beginning to realize the importance of this discovery with regard to its practical results. "This disease," he also said, "causing 150,000 deaths yearly in the neighbouring republic, annually robs us in this Dominion of about 8,000 individuals, and yet it is both a preventable and curable disease." He said "our ideas of this disease have changed from that of heredity and incurability to that of communicability and curability, thanks to the marked progress of scientific investigations."

Sir William Hingston, of Montreal, took a very strong stand against the idea that the disease was hereditary saying that, if such were the case, we simply had to fold our arms and lie down and die. He also pointed to the fact that tuberculosis was not confined to the lungs alone. It is a disease that may affect the liver, the kidneys, the bones, the joints, the glands, the skin, etc. He also pointed to the very strong resistance of the germs when in a dried state; the sputum of consumptives, when dried, remaining active and virulent for several months, especially when protected from the sun. He also said further that the sputum was scattered by ladies with long skirts, and that it was also to be found in much-handled bank bills, articles of food and clothing. In his concluding remarks he laid great stress upon the facts that the disease is not hereditary; it is preventable and it is curable in its early stages.

Dr. Fagan, of Victoria, B. C., representing the British Columbia Government as well as the Board of Health of that Province, next addressed the meeting. He drew attention to the fact that tuberculosis was responsible for the death of a greater number of people than all the other infectious and contagious diseases combined. Quoting his own words: "Such theatrical diseases as small-pox, plague, cholera,

diphtheria, scarlatina, etc., are so dreaded that the neglect to provide against their incursion would mean the downfall of any government. A meeting such as this will educate the people, and when they understand that tuberculosis is as nearly preventable as small-pox they will demand that action be taken, not only to prevent the dissemination of the disease, but also help in its eradication by the erection of Sanatoria for the cure of those affected."

The Hon. Dr. Guerin, representing the Quebec Government, urged upon the meeting the necessity of the different provincial governments co-operating in order to stay the spread of the disease, but he also pointed to the fact that the task was not to be left to the different provincial governments alone to deal with, but the help of large corporations, insurance companies as well as municipalities and philanthropic individuals should be solicited. Educational work also is necessary, and, unless the public are properly educated to state their wants, the government is practically helpless in this matter. He also wished not only those present, but the general public, to know the entire absence of danger to people living in close proximity to Hospitals and Sanatoria for the treatment of this disease.

Dr. Jas. Stewart, of Montreal, laid very great stress upon the power of the public press to aid in the education of the public regarding this disease. He said it was the greatest lever for banishing ignorance when used rightly, but the press must be a pure press. We don't want, for instance, an article in one part of a public newspaper pointing out the true nature and treatment of tuberculosis, while another part of the same sheet is given over to some quack advertisement pretending to cure the disease. He also asked the very pertinent question: "Are there any newspapers in Canada to-day that do not contain advertisements of alleged cures of tuberculosis"? Dr. Stewart, continuing in his remarks, emphatically made the following statement: "The most important measure for the prevention of tuberculosis is the establishment of Homes and Sanatoria for the needy; the Sanatoria to be used for cases of incipient disease and homes for advanced cases where a cure is improbable. This is a duty devolving upon the State." He concluded his remarks by calling attention to the dust nuisance in cities and towns, making the statement that dust inside and outside of a house was a most prolific source of dissemination of the disease, facetiously quoting the old proverb that "the broom is man's chief danger."

The next speaker, The Hon. Dr. Borden, urged upon the meeting the necessity of imparting to school teachers all

necessary information regarding this disease, and even to go so far as not to issue certificates to them unless they showed suitable proficiency in this special department of Hygiene.

The Hon. Sidney Fisher, Minister of Agriculture, in the course of his remarks said that it was necessary, first, to educate the public regarding the nature of tuberculosis, and this would in turn create a sentiment which would demand legislation at the hands of the proper bodies.

Dr. A. Lapthorn Smith, of Montreal, dwelt upon the necessity of beginning the educational campaign in the schools by issuing cards or pamphlets dealing with the principal facts regarding the disease, with the request that these be read to the pupils at least once a month. They would never forget what they thus learned in childhood, and when, in a few years, they became the heads of families, they would put their knowledge to such good use that the disease would soon be stamped out.

Dr. T. G. Roddick, M.P., of Montreal, moved the second resolution on the programme, which called for legislation encouraging the notification of cases of tuberculosis and the prevention of the spread of the disease through expectoration. The inspection of meeting places and work houses, etc., as well as to aid in providing some scheme whereby governments and municipalities might assist in establishing Homes and Sanatoria. Dr. Roddick spoke very strongly regarding the carelessness shown in protecting the public from expectoration on asphalt pavements, in street-cars, railroad trains, places of amusement, etc. He favored also the establishment of a Dominion Health Bureau to deal with these matters.

Dr. L. Laberge, Health Officer, Montreal, spoke at some length urging that literature be distributed amongst patients suffering from the disease, particularly so if it were possible to encourage some method of notification which need not be compulsory.

Dr. A. P. Reid, Secretary of the Provincial Board of Health for Nova Scotia, said that he was in perfect sympathy with the present movement, and that the government of Nova Scotia had already had the subject under consideration with a view to the establishment of Sanatoria in that province. He also dwelt upon the necessity of urging the general use of the Tuberculine test, not only one for the bovine, but also for the human race.

Dr. W. F. Hamilton, of Montreal, declared himself very strongly in favor of compulsory notification. He strongly suggested that the co-operation of clergymen be obtained so as to have talks upon tuberculosis delivered from the

pulpit. He also referred to the necessity of securing the support of the daily press in order to educate the public. In his estimation the most important factors in order to deal successfully with this question were the press and legislative bodies. He also referred to the good influence and the educational importance of the Schools in the dissemination of knowledge regarding the spread of this disease.

Dr. Macdonald, of Brandon, Man., representing the Provincial Board of Health of Manitoba, thought that compulsory notification in cases of tuberculosis might be difficult to enforce, particularly if compulsory isolation were to follow. He drew the attention of the meeting to the necessity for providing means of disinfecting premises after the death of patients through tuberculosis. He also claimed that the aid of the Federal Government should be asked for the purposes of limiting the spread of tuberculosis by the entrance of diseased cattle into the country.

Col. McCrae, Chairman of the Board of Health for the Township of Guelph, dealt particularly with bovine tuberculosis, and made some very emphatic statements as to the possible losses that might accrue to cattle breeders were the Tuberculine test enforced, particularly among high bred cattle. He referred in a rather uncertain way to the reliability of the test, with an attempt to make some proof against it, which failed to impress the meeting.

Dr. Fraser, of Brandon, Man., who represented the Indian Department of that section of the country, spoke in the most sympathetic terms regarding the objects of the conference. He gave some graphic examples of the ravages of the disease among the Indians, stating that scarcely a single family was free from the disease.

The Rev. Canon Hannington, of Ottawa, gave some very startling instances from his long experience as a clergyman, showing the necessity for special Homes or Hospitals in order to treat consumptives separately. His antiquated ideas with regard to the communicability of the disease were simply overwhelmed by the statement made by Sir William Hingston regarding the non-hereditary nature of the disease. The germ, he said, may not be inherited, but the soil upon which it flourishes must be inherited he finally concluded. The Rev. Mr. Hannington also doubted, in fact, more than doubted, whether a really consumptive person had ever been cured.

Dr. R. W. Powell, of Ottawa, disputed a few of the statements made by the preceding speaker, and proceeded to

enlighten the meeting regarding the two points in connection with the disease with which the previous speaker seemed to be yet at sea.

The third resolution was then moved by Professor J. G. Adami, of Montreal: "Resolved, that it is the view of this conference that in a disease whose influence extends from questions of the inspection of immigrants to that of imported cattle, and affects the output of our farms and our factories, the federal government may greatly assist in the fight against tuberculosis by preventing the entrance into the country of tuberculized immigrants and tuberculized cattle, and should arrange for a system of federal health statistics, establish a sanatorium in each of the several typical Canadian climates, and make an annual grant for the distribution of literature regarding the means of prevention and cure of tuberculosis." In the course of his remarks he referred to the fact that tuberculosis is a disease menacing the whole nation and the eradication of which is a national concern. Continuing, he said: "He would be too provincial, too contemptible in his narrowness, who would raise his voice in opposition to any well-considered scheme whereby the federal government could lessen the incidence of the disease, could improve the condition of our people, could add to the years and productivity of the average Canadian, and could better our position as a race." He briefly referred to the good results obtained in the treatment of this disease in the Adirondack and Laurentian Mountains as well as in the Muskoka district, stating, however, that in the treatment of the disease a great many other resorts are yet available within the Dominion.

Dr. F. Montizambert, Director of Public Health for the Dominion of Canada, dwelt upon the difficulties that would arise were tubercular immigrants to be quarantined. The test would be difficult of application and doubtful as to results unless greater power of detention were available. He advised the examination of such patients at the port of exit, and thus save the country the additional cost of sending home the individuals unsuitable as immigrants to this country.

Dr. Duncan McEachran, Dean of the Faculty of Comparative Medicine, McGill College, dwelt very elaborately upon the decrease of tuberculosis among our Canadian cattle. His statements were supported by statistics which proved them most conclusively. The statement that only about 2 p.c. of the cattle in this Dominion is supposed to suffer from the disease is most encouraging and compares very favorably indeed with existing conditions in other civilized countries.

Dr. E. P. Lachapelle, chairman of the Board of Health for the province of Quebec, in his remarks stated that two points must be strongly considered in this struggle—the first, to diminish existing tuberculosis, the second, to render its recurrence almost impossible. He strongly urged the necessity of beginning the education at school, teaching the children in a simple and clear way the notions and salient features regarding the communicability and the spread of this disease.

The fourth resolution dealing with the desirability of the formation of an association was then brought forth by Dr. A. J. Richer, who, in the course of his remarks, referred to the appalling numbers annually claimed by tuberculosis alone in this country. The death rate in Canada, he said, was no less than 8,000 a year. He took the stand of an economist, and, following upon the lines of a certain number of observers who placed the value of each average life to the federal government at not less than \$1,000, claimed that \$8,000,000 now annually lost to the country might be easily saved. In his estimation an association such as was about to be formed would act very much in the capacity of an immigration agency, which, if treated in a fairly liberal way, would, in five years, have brought into the country seven thousand immigrants, and in ten years thirty-five thousand immigrants, from within our own fold, and thus have reduced the death rate from this disease, in five years, by half, and in ten years by 90 per cent., a saving to the country of \$35,000,000 in the course of the ten years at a probable cost of less than \$1,000,000.

Dr. Robert Wilson, of Montreal, supported the fourth resolution, referring to the fact that since confederation nothing has occurred in the history of this broad Dominion of ours of such transcendental importance to us as a nation as this conference on tuberculosis. He believed the public would strongly support this association, whose main object would be that of stamping out tuberculosis from our midst.

The meeting then adjourned till the evening, to meet for the purpose of forming an association for the prevention of tuberculosis.

In the evening the association was formally organized under the name of "The Canadian Association for the Prevention of Tuberculosis."

The following were elected officers :

Honorary President.—His Excellency the Right Hon. Earl of Minto, G.C.M.G., Governor-General.

President.—Sir James A. Grant, M.D., K.C.M.G.

Vice-Presidents.—The Right Hon. Sir Wilfrid Laurier, G.C.M.G., P.C.; the Right Hon. Lord Strathcona and Mount Royal; the Hon. Sir Charles Tupper, Bart., G.C.M.G., C.B.; the Hon. Sir Oliver Mowat, G.C.M.G., Lt.-Governor, Ontario; the Hon. Sir H. C. Joly de Lotbiniere, K.C.M.G., Lt.-Gov., British Columbia; the Hon. L. A. Jetté, Lt.-Gov., Quebec; the Hon. A. G. Jones, Lt.-Gov., Nova Scotia; the Hon. A. R. McClelan, Lt.-Gov., New Brunswick; the Hon. D. H. McMillan, Lt.-Gov. Manitoba; the Hon. P. A. McIntyre, Lt.-Gov., Prince Edward Island; the Hon. A. E. Forget, Lt.-Gov., North West Territories; the Commissioner of the Yukon.

Executive Committee.—Sir Jas. Grant, M.D., K.C.M.G.; Dr. E. J. Barrick, Dr. R. W. Powell, Hon. Sydney Fisher, Hon. R. R. Dobell, Mr. W. C. Edwards, M.P.; Dr. F. Montizambert, Prof. J. W. Robertson, Mr. Geo. H. Perley, Mr. C. B. Powell, M.P.P.; Mr. A. W. Fleck, Mr. R. L. Borden, M.P.; Dr. T. G. Roddick, M.P.; Dr. J. H. Neilson, Mr. J. M. Courtney, C.M.G.

Sub Committees.

Finance.—Hon. R. R. Dobell; Mr. W. C. Edwards, M.P. Mr. Geo. H. Perley; Mr. E. B. Eddy; Mr. J. M. Courtney, C.M.G.

Publication.—Dr. F. Montizambert, Prof. J. W. Robertson, Dr. E. J. Barrick, Dr. R. W. Powell, Dr. J. H. Neilson.

Medical Counsel.—Dr. A. J. Richer, Montreal.

Secretary.—Rev. C. S. Eby, D.D.

Treasurer.—Mr. J. M. Courtney, C.M.G.

Therapeutic Notes.

CRUSTS OF VARICELLA—CHICKEN-POX.

- R_y Acidi carbolic. ℥xv
 Acidi borici. ʒiiss
 Glycerini. ʒiij
 Aquæ rosæ. ʒi
 Aquæ destil., q. s. ad. ʒiv
 M. Sig. Apply locality
 R_y Acidi carbolic. ℥v
 Ichthyolici. ʒiiss
 Vaselini. ʒj
 M. Sig. Apply with a soft cloth.

—*Journal A. M. A.*

ACUTE DIARRHŒA.

R Sodium bicarbonate.....	3j
Aromatic spirit ammonia.....	fl. 3iij
Comp. tinct. car lam m.....	fl 3vj
Aq. cinnamon.....	fl. 3vj

M. Sig : Two tablespoonfuls every two or three hours.

—Yeo, *Medical Record*.

ACUTE CYSTITIS.

R Fl. ext. buchu.....	fl. 3j
Potassium citrate.....	3iij
Sweet spir. nitre.....	fl. 3iv
Syr. lemon to make	fl. 3iij

Teaspoonful every three hours in water.—*Canada Lancet*.

RECTAL INJECTION OF IODIDS AND BROMIDS.

The *Therapeutic Gazette* contains an extract from an article of Kobner, published in the *Journal de Méd. de Paris* in which he recommends the following formula when iodids and bromids can not be taken by the mouth :

R Potassii iodidi	
Potassii bromidi.....	aa gr. xlv
Ext. belladonnæ.....	gr. iv
Aquæ destil.....	3vii

M. Sig.: Add two tablespoonfuls of this solution to three ounces of warm water and inject into the lower bowel once, and, if necessary, twice a day.

If a stronger solution is desired following prescription may be employed :

R Potassii iodidi.....	
Potassii bromidi	aa 3ii
Ext. belladonnæ.....	gr. vii
Aquæ destill.....	3x

M. Sig.: An ounce of the solution may be given in, three ounces of water twice a day by rectal injection.—*J. A. M. A.*

MOUTH WASH AND GARGLE FOR SWEETENING THE BREATH.

R Acid salicyclici ; soda bicarb.,	aa gr. xv.
Spt. vini rect,	dr. i.
Spt. menth pip.,	gtt x.

M. S. Teaspoonful in a small cup full of hot water —
Palmer.

SPASMODIC COUGH IN BRONCHITIS.

R	Codeinæ.....	gr. v
	Acidi hydrocyanici dil.....	m xl
	Acidi phosphorici dil.....	oz. i
	Syrupi tolutani.....	dr. ii
	Aquæ, q. s. ad.....	dr. iv

M. Sig. One teaspoonful every three or four hours.—
J. A. M. A.

ACUTE NASAL CATARRH.

Carbolic Acid, 8 min.
 Ichthyol, 1 dr.
 Dil. Alcohol, 2½ dr.
 Distilled water, to make 3 oz.

Use as a spray, by means of atomizer, two or three times a day.—*Four. Amer. Med. Association.*

HEART FAILURE IN TYPHOID FEVER.

R	Spts. ammoniæ arom.....	ʒiv
	Tinct digitalis.....	ʒij
	Elixiris simplicis.....	ʒiv
	Aquæ destil, q. s. ad.....	ʒiij

M. Sig. Shake. One teaspoonful every three hours.

HABITUAL CONSTIPATION.

R	Sulphuris loti.....	
	Potassii bitartratis.....	aa ʒj
	Pulv. sennæ (leaves).....	ʒiv
	Syrupi rhei.....	ʒ ij
	Syrupi rhamni purshianæ, q. s.....	ʒiij

M. Sig. One teaspoonful morning and evening.—
J. A. M. A.

TO PROMOTE UTERINE CONTRACTIONS.

In cases of deficient contractions during labor, due to a lack of muscle tone, the following formula is recommended :

R	Quininæ sulphat.....	gr. 40
	Ac. sulphur, aromat., q. s. ft. sol...	
	Syr. zingiberis	ʒ i
	Aq. q. s. ad.....	ʒ 2

M. Sig. : Initial dose, one tablespoonful ; afterward, two teaspoonfuls every four hours —Ringer, *Medical News*.

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All communications for the Journal, books for review, and exchanges, should be addressed to the Editor, Box 2174, Post Office- Montreal.

Editorial.

CANADIAN MEDICAL ASSOCIATION.

The first meeting in the new century will take place at Winnipeg on August 28th, 29th, 30th and 31st next, and from present prospects it will be a record breaker in that large numbers from the East are so arranging their holiday trip as to make Winnipeg the trytsing place in August, while the men from the West are a unit in their enthusiam to make the Western meeting the best the Association has held.

The address in Medicine will be delivered by Dr. J. R. Jones, of Winnipeg, and the one in Surgery by Mr. O. M. Jones, F.R.C.S., Eng., of Vancouver, B.C. An evening will be devoted to a discussion on tuberculosis and another evening to some surgical topic. An extensive pathological exhibit will be an interesting feature.

By way of entertainment an excursion to Fort Garry, and on Saturday, August 31, a trip to Brandon, with a luncheon, returning through southern Manitoba, will be arranged.

At present it is not possible to state what the railways will do in the way of reduced fares, but from negotiations now going on a rate so cheap can be safely promised that no one can afford to stay away. This in itself should insure a large and representative gathering.

VICTORIAN ORDER OF NURSES.

The annual meeting of the Board of Governors of the Victorian Order of Nurses was held at Government House, Ottawa, on the 14th of March. The report presented was a very satisfactory one, shewing that the Order is doing good work, and steadily, if slowly, progressing. The work done at the various branches is given within small compass, and embraces reports from Montreal; Toronto, O.; Ottawa, O.; St. John, N.B.; Halifax, N.S.; Kingston, O.; Hamilton, O.; Truro, N.S.; Vernon, B.C.; Biddeck, C.B.; New Richmond, Q.; Buckingham, Q.; Regina, N.W.T.; Shoal Lake; Port Frances; Port Arthur, O.; Fort William, O.; Thessalon, Ont.; North Bay, O.; Bracebridge; Little Current; Manitoulin Island and Canso, N.S. During the year six new branches were opened and supplied with nurses. It gives the number employed as nurses in the Order on the 1st of January, 1900, as 23. Why this, as well, so far as we can judge, all other parts of the report are only brought down to this date, over fourteen months, anterior to the annual meeting on March 14 of the present year is not explained, and does not look business. In fact, the style of the entire report is not, in our opinion, at all satisfactory. The report of each branch varies in the information which it gives, while we think they should, statistically, be alike.

Other information desired to be given should be included under the head of "Remarks." The Board of Governors should at once prepare a form containing a schedule of the information desired from each branch. Until this is done, it is quite impossible to grasp the full value of the work comparing one station with another.

DRUG HABITS IN THE UNITED STATES.

The *London Lancet* of March 2, 1901, contains the following notice: "The New York School of Clinical Medicine has established a special department of neurology, of which Dr. T. D. Crothers, of Hartford, Conn., has been elected professor, viz., the study of the neuroses and psychoses of alcoholism and of drug habits. Dr. Crothers is announced to deliver immediately a course of clinical lectures on ine-

briety from alcohol, opium, chloral, cocaine and other narcotics. These lectures appear to be timely, for the diseases dependent upon or associated with the abuse of alcohol, opium, chloral, cocaine and other narcotic drugs are steadily increasing in the United States of America, and the demand for special treatment in institutions and retreats is becoming more pressing every year. The last number of the *Quarterly Journal of Inebriety* has the following words in a leading article: 'All the large public hospitals and asylums in the States have wards and rooms for alcoholics and drug takers, and the same demand for treatment is seen in private practice in the increasing number and urgency of such cases.' It is also important to notice that there is practically very little special literature dealing systematically and authoritatively with the nature and treatment of these neuroses. As a consequence this field is largely occupied by charlatans and irregulars, who, with innumerable specifics and secret drugs, claim the most marvelous results."

TO OUR READERS.

Owing to a considerable increase in subscribers during the years of 1899 and 1900, the numbers for those years are completely exhausted. Any of our subscribers, who do not bind the RECORD, would confer a favor by mailing to our office any numbers they may have of those years.

THE LATE DR. D. D. GAHERTY.

It is with very deep regret that we announce the death of Denis D. Gaherty, B.A., C.M., M.D. of Montreal, which took place at the residence of his father at Carillon, Que., on the 24th of March, at the age of forty-three years. He was a B.A. of St. Mary's College, Baltimore, Md., U. S., and graduated from the Medical Faculty of Bishop's College (Montreal) in 1879, being awarded the "Wood Gold Medal" for the highest aggregate number of marks on all subjects of professional examination. He was the following year appointed a Demonstrator of Anatomy in his Alma Mater, and in 1883 took the Pro.

fessorship of Anatomy, which he held for two years, but on account of his health was obliged to abandon.

He began practice in Montreal and soon had around him a large *clientele*, to whom he ministered skilfully and affectionately, and was, as he deserved, loved by them and all who knew his warm and generous nature. But the strain of an extensive practice soon showed its effect on his constitution, and he was obliged to relinquish active work and rest in the country. At intervals he attempted to resume practice, but was repeatedly compelled to take rest. At last chronic Bright's disease showed itself, and complications ensued which made him for the last few years a confirmed invalid. Dr. Gaherty was a widower, but left no family.

PERSONAL.

Dr. F. J. Shepherd, Professor of Anatomy, Faculty of Medicine, McGill University, Montreal, was elected a Vice-President of the Cuban Medical Congress, and President of the section of Pathology. The congress met in Havana in the early part of February.

Dr. Oscar F. Mercier, of 144 St. Denis Street, Montreal, has been appointed Surgeon to the Notre Dame Hospital, in place of the late Dr. Brosseau.

Sir James Grant, M.D., of Ottawa, has been elected President of the Canadian branch of the St. John's Ambulance Association, in place of the late Sir Alexander Kirkpatrick.

Surgeon Major C. W. Wilson, of the Second (Service) Battalion of the Royal Canadian Regiment, who has returned from service in South Africa, was entertained at Dinner on the 21st of December at the St. James Club by a large number of his professional brethren. The Chair was occupied by Dr. F. J. Shepherd, and the Vice-Chair by Dr. Roddick, M.P.

Surgeon Major Worthington, Royal Canadian Artillery of Sherbrooke, who recently returned from active service in South Africa, was, on his arrival home, received with a popular demonstration, and presented with an illuminated address. He is to be entertained, later, at a public banquet.

H. Lightstone, a medical student of Bishop's College,

who went to South Africa as a private in E Battery of the Royal Canadian Artillery, has returned, looking all the better for his active service against the Boers. He was promoted to be a bombardier. He was received with every demonstration of regard by his fellow students.

Dr. A. J. Richer (M.D., Bishop's, 1892), Professor of Hygiene, Faculty of Medicine, Bishop's University, has been named Medical Counsel, or Expert, to the Association formed recently at Ottawa to stamp out tuberculosis.

Dr. F. W. Campbell, the Editor of the RECORD, who has had a severe attack of pneumonia, being confined to the house for two months, is able to be out once more, though not as yet able to resume full work.

Dr. Grant Stewart, Professor of Physical Diagnosis, Faculty of Medicine, Bishop's University, has had a severe attack of grippe, but has recovered. He took a trip to Washington to recuperate.

Dr. F. J. Hackett (M.D., Bishop's, 1892), Professor of Anatomy, Faculty of Medicine, Bishop's University, has recovered from a very severe attack of typhoid fever.

Dr. Craik, Dean of the Faculty of Medicine of McGill University, has been very ill, but has recovered, and is able to be about once more.

Sir William Hingston and Dr. F. W. Campbell were at the last meeting of the Canadian Medical Association, and were elected its representatives on the Board of Governors of the Victorian Order of Nurses.

Dr. M. Goltman (M.D., Bishop's, 1892), who is located in Memphis, Tenn., gave an interesting lecture on Vivisection before the Nineteenth Century Club at Memphis on the 5th of March.

Dr. Casey A. Wood (M.D., Bishop's, 1877), of Chicago, who resided for many years in Montreal, and during that time was a member of the Faculty of Medicine of the College, has been elected President of the Chicago Ophthalmological Society, also Ophthalmic Surgeon to St. Luke's Hospital.

Dr. Adami, Professor of Pathology in the Faculty of Medicine of McGill University, has been appointed Vice-President of the Section on Pathology and Bacteriology of the International Congress on Tuberculosis, which meets in London in July. Dr. Adami has accepted and will be present.

Dr. Manchester (M.D., McGill), who served a term as House Surgeon at the Montreal General Hospital, and subsequently became assistant to Dr. Burgess at the Protestant

Hospital for the Insane at Verdun, near Montreal, has been appointed superintendent of the New Westminster, B.C., Insane Hospital.

Dr. Laphorn Smith, Professor of Clinical Gynecology in Bishop's University, who was recently appointed Professor of Gynecology in the University of Vermont, is at present in Burlington, delivering his first annual course of lectures at the Medical School at which there are 180 students enrolled this year, the faculty having been reorganized and the course extended to four years. He gives a surgical clinic at the Mary Fletcher Hospital every morning until the 30th March, when he will return to Montreal.

Dr. Fife Fowler, who has been connected with the Medical Faculty of Queen's College, Kingston, for fifty years, has resigned the Professorship of practice of Medicine, and has been succeeded by Dr. Third. Dr. Fowler retains the position of Dean of the Faculty.

Book Reviews.

A Text-Book of the Practice of Medicine.—By James M. Anders, M.D., Ph.D., LL.D., Professor of the Practice of Medicine and Clinical Medicine in the Medico-Chirurgical College, Philadelphia. Illustrated. Fourth Edition thoroughly revised. W. B. Saunders & Co., Philadelphia and London, 1900. Cloth, \$5.50; sheep or half morocco, \$6.50. Canadian Agents: J. A. Carveth & Co., Toronto.

A fourth edition one year after the third bespeaks for a work appreciation on the part of its readers, and suggests a more than ordinary extensive circulation. Both of these desiderata have obtained in regard to Dr. Anders' Text-Book of the Practice of Medicine. It has been more than appreciated by students, owing to the concise and systematic arrangement of the various articles and the thorough treatment accorded. Each disease is considered in numerous paragraphs with headings in large type, so that all points bearing on any one aspect of the subject are found grouped together and thus more readily grasped by the student. Dr. Anders, while incorporating throughout the article his personal experience, has taken a comprehensive grasp of the most recent writings in Medicine, so that we have the latest views in regard to Pathology treatment, etc., and everything is eliminated which is not practical and recent. Many changes have been made and much new matter added to the edition, more especially in diseases of the digestive system. Among the subjects written anew are ileo-colitis and acute cholecystitis. The paging remains the same, and where new matter is added other parts have been condensed and portions excluded.

Numerous tables on differential diagnosis appear throughout

which will prove valuable in distinguishing between affections closely allied. Quite a number of very useful diagrams appear, which enhance the value of the book to the student and enable him to more clearly and readily comprehend the text. It is undoubtedly one of the best books on Medicine now published.

J. B. McC.

Laboratory Directions for beginners in Bacteriology.

An introduction to Practical Bacteriology for students and practitioners. By Veranus A. Moore, B.S., M.D., Professor of Comparative Pathology and Bacteriology, New York State Veterinary College, and of Bacteriology, Cornell University, Ithaca, N.Y. Ginn & Company, Publishers Boston.

This work contains, within a small compass, sixty-four laboratory exercises for beginners in bacteriology.

The choice of subject-matter and the selection of methods for a short elementary laboratory course, is yearly becoming more difficult with the rapidly increasing progress in bacteriology. Dr. Moore has made a judicious choice of bacterial types for study, and his methods are of the best. The work is characterised by a thorough condensation of useful information, and by helpful directions which should enable students to carry out the various procedures without loss of time.

A. B.

Panama and Sierras, a Doctor's Wander Days. By Dr. G. Frank Lydston, Chicago. The Riverton Press, 1900.

It is not often that the Medical Record has the pleasure of receiving a complimentary copy of any work not strictly medical. We are therefore pleased that Dr. Lydston has favored us with his volume, which bears the title copied above. He dedicates it to the "Slay at Homes, be they such from choice or necessity, with the tenderest sympathy of one who has left their ranks never to return, who has drank of the ambrosia of change and eaten of the Lotus of rest." The basis of the story is a trip by steamer from New York, calling at Panama and other way ports, and is written in short readable paragraphs, of from a page to several pages in length. The Doctor was born in California, his parents having gone thither in the early days of the gold fever, by the overland route, and in this excursion he revisits the place of his birth, and many incidents of his early life there are detailed with a vividness which marks him as an author of more than ordinary ability. His reason for taking the trip was a tedious convalescence after grippe, and the discovery by his surgical friend that he had appendicitis—and then persecution of him by day and nightly dreams to have his appendix removed. Recovering, however, without operation, he gave them the slip and started on his journey, only to find on his return his surgical friend laying in wait for him—and the result was his appendix was removed by a surgical friend who runs "a remove your appendix while you wait" clinic. The book is very readable and enjoyable, and we thank the author for the opportunity he has given us of reading it, which we have done without missing a page.

Diseases of the Heart, their Diagnosis and Treatment.—By Albert Abrams, A.M., M.D., San Francisco, Consulting Physician for Diseases of the Chest, Mt. Zion Hospital and the French Hospital. Illustrated. Pages, 172. Price, \$1.00 net.

In this book the author discusses the subject of diseases of the heart entirely from a practical aspect. His most noteworthy researches in methods of diagnosis are here recorded for the first time in collected form, and the latest and most practical methods of treatment given in detail.

It is just such a little work as one can take up and glance over when in a hurry, in quest of some information of a practical character, and which will not fail to give you what you seek.

F. W. C.

Rudiments of Modern Medical Electricity. Arranged in the form of answers and questions, prepared expressly for students of Medicine. By S. H. Monell, M.D., Professor of Static Electricity in the International Correspondence Schools, etc. Edward R. Pelton, Publisher, 19 East Sixteenth Street, New York.

This little volume is in marked contrast to the massive works which have issued from the pen of this author. It resembles a catechism in having the subject presented by way of questions and answers. Electricity is considered under the following headings:

What is Electricity? what is Medical Electricity? Electrotherapeutic prescribing, Electrophysics, Electrophysiology and Electrotherapeutics. Instruments are described and illustrated. The elements of knowledge required for a general comprehension of this subject are tersely stated here, and, where fuller knowledge is desired, the author's various other works are referred to.

J. B. McC.

An American Text Book of Physiology. Edited by William H. Howell, Ph. D., M.D., Professor of Physiology in the Johns Hopkins University, Baltimore. Second Edition, revised, Vols. I and II. Price, \$5. Philadelphia: W. B. Saunders & Co., Canadian Agents: J. A. Carveth & Co., Toronto, Ont.

The fact that it has been found necessary to publish a second edition of the American Text-Book of Physiology, three years after the appearance of the first edition, proves that the work has been well received by teachers and students of physiology. The size of the book, when issued in a single volume, was unwieldy and inconvenient. Half a stone weight of physiological material was more than the average medical student cared to handle. An attempt has therefore been made to render the Text-Book more serviceable to the student by issuing the present edition in two volumes. This certainly adds to its usefulness, for the work can be consulted in the lecture-room or the laboratory with greater ease.

The original scope of the work has not been materially changed. Since the appearance of the first edition, some progress

has been made in physiology, and a certain amount of revision is noticeable in this edition. The section dealing with the Central Nervous System has been recast in large part, and in its present form is more suitable to the actual needs of medical students.

The section upon physiological chemistry is characterised by a thorough condensation of all necessary information on this branch of physiology, expressed in a terse and clear style. We note that some space is devoted to the consideration of Kossel's work on protamins.

In the section upon the processes of diffusion and osmosis, their alleged importance in the nutritive exchanges of the body is set forth with some reservation. Physiologists are all agreed that the flow of proteid material between the blood and the tissues cannot be satisfactorily explained on purely physical grounds, for the proteids of the blood are practically indiffusible. Therefore, in the present state of our knowledge of the nature of the nutritive proteids, and their relations to the capillary walls, any attempt to explain the formation of lymph on a purely physical theory would be futile.

The work, in its present form, with its admirable illustrations, represents what is most modern in physiology, and we are glad to be able to express our appreciation of it.

A. B.

Student's Edition, a Practical Treatise of Materia Medica and Therapeutics, with special reference to the Clinical Application of Drugs. By John V. Shoemaker, M.D., LL.D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Medicine and Clinical Professor of Diseases of the skin in the Medico-Chirurgical College of Philadelphia; Physician to the Medico-Chirurgical Hospital; Member of the American Medical Association, of the Pennsylvania and Minnesota State Medical Societies, the American Academy of Medicine, the British Medical Association; Fellow of the Medical Society of London, etc., etc. Fifth Edition. Thoroughly revised. $6\frac{1}{4} \times 9\frac{1}{2}$ inches. Pages vii-770. Extra Cloth, \$4.00, net; Sheep, \$4.75, net. F. A. Davis Company, Publishers, 1914-16 Cherry St., Philadelphia.

The task of writing a book which should be sufficiently condensed, concise and dogmatic to suit the medical student, and which would still go deeply enough into the physiological actions and therapeutic applications of drugs, and the varied therapeutic measures at the disposal of the physician, is one which has been faced with more or less success by every writer on the subject of materia medica and therapeutics. Shoemaker has cut the gordian knot by issuing his last revision in two editions, one for students, embracing only what is essential he should know, the other for physicians presumably wider in its scope and subjects embraced. In the present volume there has been left out all reference to therapeutic measures other than drugs; Electricity, Clymatology, Hydrotherapy, Hypnotism, Diet in disease, Massag', etc., etc. The wisdom of this course is open to question; in the present state of affairs too many medical faculties, pharmacology (in its modern sense) and

therapeutics are still taught by the same teacher at the same course of lectures, and the text book adopted will too often be the only one the new graduate will carry into his office for reference. Not every graduate (or sometime physician, for that matter) has a three volume system of Therapeutics to refer to, and the absence of the second half of the fourth (previous) edition will be sorely missed.

The title would much more appropriately be "a practical treatise on pharmacology (with especial reference to the clinical application of drugs) for students." Just what form the physician's edition will take I do not know, as I have not seen it yet. If it be an amplification of this, it will to a great extent replace it; if it be purely a volume on therapeutics, it will fill a place of its own and be a fitting companion to the present volume.

Of the book itself, nothing but praise can be said; it has been most thoroughly revised and brought up to date. I am pleased to note Gauthier's cacodylic acid treatment mentioned under "Arsenic," although I do not understand the daily dose being given as 1 milligramme (gr. $\frac{1}{65}$) when Gauthier advises from 2 to 5 centigrammes ($\frac{1}{4}$ to $\frac{3}{8}$ grains), not to exceed 1 decigram ($1\frac{1}{2}$ grains) a day. The saturation of the system being an important feature of the treatment, the dosage is rather odd—judging by the formula given, and I should say an error in dose per c.c. has been made. The wealth of prescriptions makes it especially valuable to the beginner. The type is clear and the paper dull enough to obviate the glare which is so tiresome and ruinous to the eyes—the binding is substantial and is the publishers' well-known style, while the absence of a host of book advertisements at the back is a notable exception for which the book makers deserve special notice. On the whole, this volume will be a welcome addition to the teacher's armamentarium.

R. W.

Therapeutics, Principles and Practice. By Horatio C. Wood, M.D., LL.D., 11th Edition. J. B. Lippincott Co., Philadelphia and London, 1900.

This new edition of Wood's well-known work on *Materia Medica* and Therapeutics is a welcome advance on the previous ones, not so much in the quality of the work, but in the new scheme of arrangement adopted; much of the heavy and detailed pharmacological laboratory work has been condensed and much omitted, to find its proper place (in a work of this kind) in a "reference list" at the end of the article. The adoption of three distinct sizes of type is also a welcome innovation. The essential matter is in one type, the supplementary and experimental matter in smaller type, while a careful summary in heavy type closes nearly every article.

The classification remains as before on a therapeutic basis, and, while perhaps not so strictly scientific as a classification based on the chemical composition of drugs as essayed by Schmiedberg and his pupils, it is probably more easily remembered and more accessible to the general practitioner.

I am glad to note that the type is very readable and printed on a dull finished paper instead of the glassy surfaces that are so

fatiguing and destructive to the eye. Wood's new work is sure to occupy a prominent place, not only in the college list, but on the desk of the progressive general practitioner.

R. W.

Fischer—Infant Feeding in Health and Disease. A

Modern Book on all Methods of Feeding. For Students, Practitioners and Nurses. By Louis Fischer, M.D., Attending Physician to the Children's Service of the New York German Poliklinik; Bacteriologist to St. Mark's Hospital; Professor of Diseases of Children in the New York School of Clinical Medicine; Attending Physician to the Children's Department of the West-side German Dispensary; Fellow of New York Academy of Medicine, etc. Containing 52 Illustrations, with 16 Charts and Tables, Mostly Original. 368 pages, $5\frac{3}{4}$ x 8 inches. Neatly Bound in Extra Cloth. Price, \$1.50, net. Delivered. F. A. Davis Company, Publishers, 1914-16 Cherry St., Philadelphia, Pa.

There are many intricate problems in infant feeding, which are being gradually elucidated by just such men as the author of this work. He has had a very large experience and he has kept his eyes open, and profited in consequence. While we find many an oft-told tale repeated—yet there are many new and valuable points made. The perusal of this little work must be very beneficial, especially to those who, to use a common expression, "have become rusty."

F. W. C.

Manual of the Diseases of the Eye. for students and general practitioners, with 243 original illustrations, including 12 colored figures. By Charles H. May, M.D., Chief of Clinic and Instructor in Ophthalmology, Eye Department, College of Physicians and Surgeons, Medical Department, Columbia University, New York. New York, William Wood and Company, MDCCCC.

This book is well adapted to supply the needs of the student who is beginning the study of Ophthalmology, for it gives him the fundamental principles of the ophthalmic art and the generally accepted theories of the causation of the various diseases of the eye with a full description of the common diseases of that organ.

The rarer forms of ocular diseases are briefly mentioned, and the vague theories and wondering speculations of the continental school are very properly entirely omitted. The illustrations are numerous and good, and the type clear. We can heartily commend Dr. May's Manual to the classes for whom it was written, the medical student and the general practitioner.

G. H. M.

PUBLISHERS DEPARTMENT.

LITERARY NOTES.

An Exposition Booklet. Here comes another of the beautiful booklets from the Bureau of Publicity of the Pan-American Exposition, Buffalo, N. Y. It consists of 16 pages and a cover in light green. The unique feature of it is the miniature reproduction of the famous poster, "The Spirit of Niagara," which has had a most remarkable demand. The envelope in which the poster booklet is mailed also bears a reproduction of this artistic work. The booklet is a popular picture book, the first page having an engraving of the magnificent Electric Tower, which is 391 feet high, and which will form the glorious center-piece of the great Exposition. On the same page is a miniature of one of the torch bearers which will adorn the wings of the Electric Tower, and beside it a picture of Niagara Falls. The center of the booklet shows a bird's-eye view of the Exposition, and gives one some idea of the great extent of the enterprise upon which about \$10,000,000 is being expended. The grounds contain 350 acres, being half a mile wide and a mile and a quarter long. The last page shows a ground plan of the Exposition, whereon the location of different buildings is indicated. The railroads will make low rates from all parts of the country during the Exposition, which opens May 1, and continues six months, and the people of Buffalo are preparing to entertain comfortably the millions who will attend. Anyone desiring a copy of this booklet may have it free by addressing Pan American Bureau of Publicity.

SANMETTO AS A GENERAL TONIC.

Dr. J. W. Russell, of Clyde, Ohio, writing, says: "I have used Sanmetto extensively in genito-urinary irritations, and in atony of the generative system, with splendid results. I am also pleased with its action as a general tonic in cases debilitated as a result of *la grippe*."

THE SUPERIOR QUALITIES OF SANMETTO IN CYSTITIS, PROSTATITIS AND GONORRHEA.

I have used Sanmetto quite extensively in cystitis, prostatitis and gonorrhea, and find it far superior to any proprietary preparation or any prescription I have ever used. It controls admirably those cases of prostatitis where there is excessive desire to urinate frequently, but an inability to do so.

Fremont, O.

R. B. MEEK, M.D.

Member N. W. Ohio Med. Soc.

Member Sandusky Co. Med. Soc.

SANMETTO IN DEBILITY AND IRRITABILITY OF GENITO- URINARY ORGANS FOLLOWING LA GRIPPE.

Have been using Sanmetto for past three years with very satisfactory results in different forms of debility and irritability of genito urinary organs. Am now using it on case of old lady, the sequelæ of *la grippe*, that is giving gratifying results. Was attacked after *la grippe* with hæmaturia, irritable stomach and a general debility. After trying various remedies without success, placed her on Sanmetto, which she retained, and at once a marked improvement began. She is now on second bottle, and improvement in general strength is marked. Hæmaturia is stopped. In cases of chronic urethritis I consider Sanmetto a specific. Will continue to keep Sanmetto within reach.

Fremont, O.

FRANK McCORMICK, M.D.

Member Sandusky Co. Med. Soc.

CANADA MEDICAL RECORD

APRIL, 1901

Original Communications.

AUTHOR'S ABSTRACT.—INSANITY IN WOMEN BY THE GYNECOLOGICAL AND OBSETRI- CAL POINT OF VIEW.

By A. LAPHORN SMITH, M.D., M.R.C.S., Eng.

Fellow of the American and British Gynecological Societies, Professor of Clinical Gynecology in Bishop's University, Montreal, and Professor of Gynecology in the University of Vermont, Surgeon-in-Chief of the Samaritan Hospital for Women, and Surgeon of the Western Hospital, and Gynecologist to the Montreal Dispensary, Consulting Gynecologist to the Women's Hospital.

From the careful consideration of a large number of recent articles by writers of great knowledge of this subject added to the writer's own somewhat limited experience, he feels justified in coming to the following conclusions.

1st. Insanity is not hereditary as is generally supposed, but it is sometimes contagious.

2nd. Insanity in the majority of cases is not due to organic disease of the brain, but to functional disorders of its circulation and of its circulating fluid.

3rd. In many cases in women the disorder of the brain's circulation is caused by reflex irritation carried by the sympathetic from the pelvic organs and caused by retroversion of the uterus, cirrhotic ovaries, fibroid tumor, etc.

4th. In other cases it is the fluid circulating in the brain which is at fault ; in some it is too poor in quality, because

the digestive apparatus is interfered with by reflex irritation of the sympathetic, due to lacerated cervix, endometritis, etc.

5th. In a lesser number of cases the brain is prevented from working because the blood is badly oxygenated or loaded with uric acid, urea or other poison.

6th. Hundreds of cases are now on record of insanity being cured by removal of the cause, the greatest number of mental cures having followed ventro-fixation and shortening of the round ligaments for the removal of retro-displacements, while many others have followed the ablation of fibroids, cirrhotic ovaries, the repair of lacerated cervices and even curetting.

7th. Such being the case, it is the duty of the family physician to examine carefully every woman in his practice who becomes insane, or to have her examined by a gynecologist, and, if any pelvic disease is discovered, it should be remedied.

8th. It is the duty of every medical superintendent of an insane asylum to have a systematic examination made, preferably under anæsthesia, so that unsuspected sources of irritation of the sympathetic situated in the pelvis may be removed. In one asylum alone this course has resulted in improvement in 60 per cent., and recovery, mentally, of 42 per cent. of those operated upon, although the pelvic troubles had existed for from six to sixteen years.

9th. If anything is done, it must be done thoroughly, as several cases have been reported where no benefit resulted until a second and more complete operation was performed.

10th. In view of the number of women who become insane from uraemia, more care should be exercised by practitioners in preventing this condition. All Protestant physicians should, with the advice and approval of one or two colleagues, empty the uterus before the kidneys become permanently damaged. (Catholic physicians are not allowed by their church to sacrifice the ovum in order to save the mother).

DEPARTMENT OF DISEASES OF THROAT AND NOSE.

Under charge of G. T. ROSS, M.D., D.C L.,

Lecturer on Laryngology and Rhinology, Faculty of Medicine, University
of Bishop's College, Laryngologist to the Western Hospital.

Botey, of Barcelona, read before the Medical Congress at Paris a paper on the importance of the superior portion of the faucial tonsil and supra-tonsillar fossa as factors in producing peri-tonsillar phlegmonous inflammation, and the necessity for complete extirpation of the superior half of the organ as curative and preventive treatment. He pointed out that, after complete extirpation, as close as it can be done with a tonsillotome, there may be a recurrence of acute inflammation, in the face of the fact that we have assured our patients to the contrary. He advises the complete enucleation of the gland to its base, detaching it entirely, excepting the inferior portion of the tonsil, and he claims to do this without danger. The inferior portion of the gland cannot do any harm when left, but the upper part is liable to do so. He lays special stress upon opening the peri-tonsillar fossæ. The undersigned can bear testimony to the utility of this treatment, for, in opening up this cavity, he has frequently been surprised at the nidus of inspissated cheesy secretion which would act as a fine breeding ground for leptothrix, and which gives no external evidence of its presence when acute inflammation is absent.

Botey also calls attention to the fact that a pseudo-hemoptysis may originate from the nasopharynx. The varicose veins, which one often sees at the base of tongue, may rupture by effort or cough, or in vomiting, and cause sharp bleeding, which, if the patient is a tuberculous subject, might easily be regarded as of pulmonary origin.

Professor Ferreri (Rome) narrates a case of acute leukemia of tonsillar origin. Examination of oropharynx showed so much tumefaction of the two tonsils as to block it up. An extravasation of blood the size of a cent was noticed in centre of each tonsil, where they were in contact with each other. The organ was elastic to touch. Little

spots of hemorrhage was noticed on the palatine arch, the mucous membrane inside mouth and lips, the gums being boggy and bleeding. Later ecchymosis appeared on abdomen, and gradually patient died, due to loss of blood from every mucous membrane.

From close investigation the professor concluded that the case quoted was *lymphadenitis tonsillaire leucemique*, owing to entire absence of splenic tumor, and absence of pain in bones.

Murray (Scranton) says lactic acid forming germs are the most destructive organisms found in the mouth. He sums up by stating that :

- 1 The teeth should receive attention from infancy ;
2. The mouth is often primary source of throat trouble ;
3. Bad taste in mouth suggests infection of tonsils or oropharynx ;
4. Diseased tonsils act as germ incubators, and should be removed.

Snow, of Syracuse, in an article read before the American Medical Association, spoke of the systemic factors which obtain in catarrhal conditions, and placed much stress upon sluggish skin reaction, as a cause why a good result would not follow the best nasal surgery and the most careful after-treatment. He advises cold baths and friction as the best means of producing prompt skin reaction. In patients of low vitality, some slight exercise or brisk rubbing may precede. A torpid liver or lack of exercise with attending digestive disorders may also create or make obstinate an inflammation in the Eustachian tubes, effectually blocking anything like a regular course of vapours to the middle ear. Even gastric, uterine or renal troubles have their bad influence on the 'hickness of the membranes and many other constitutional diseases which require attention beyond what the specialist is expected or justified in giving. In other words, catarrhal deafness is often

dependent on so many combinations of causes that it calls into play, not only the qualifications of a throat and nose specialist, but it makes the training of a general practitioner a necessity before specialism is adopted.

Leonard says that by far the larger number of cases of nasal suppuration are confined to the antrum of Highmore. General purulent rhinitis is not a sufficiently exact diagnosis. With few exceptions inflammation of the antra is caused by bacteria, and influenza, scarlatina, measles and erysipelas were the diseases which most commonly gave rise to suppuration of the accessory sinuses. Transillumination is looked upon, by Grunwald, as of comparatively little importance, but is in the hands of most authorities an undoubted aid in diagnosis.

DeHavilland Hall advances the theory that ordinary nasal polypus is essentially a simple localized patch of œdematous mucous membrane, and that this œdema is a result of disease in the underlying bone. This theory is supported by both clinical and microscopic examinations. Cordes has confirmed this theory by some investigations but has not always found bone changes in mild cases of polypi. If this theory of the pathology of nasal polypi be accepted, the whole question of treatment must be reconsidered, for it follows that our efforts must be directed towards the eradication of the bone disease and not simply towards the removal of the polypi, one of its effects.

Ingals gives his experience of the new preparation of supra-renal capsules, adrenaline. He reports thirty-three cases where the preparation was used in the strength of 1-1000, 1-5000, and 1-10,000. The solution was a chloride dissolved in the normal salt solution. The results were most satisfactory, being both hemostatic, anesthetic and antiseptic.

Selected Articles.

TREATMENT OF INFLUENZA.

Dr. A. Jacobi, discussing the treatment of influenza in children, says :

Treatment.—There is no specific for influenza like quinine for malaria or salicylic acid for rheumatism. Innocent muriate of ammonium, also carbolate of potassium, sulpho-carbolate of sodium, carbolic acid, ichtyol and other remedies have been so recommended without the expected success. Thus, rational, hygienic and symptomatic and sustaining medicinal treatment only can be considered. A purgative dose of calomel should be given in order to clear the bowels of microbic and toxic ingesta, the bowels appearing to be the principal point of attack in young children. The patient should be kept in bed, the temperature of the room at 70 degrees F. or more at first, the diet should be scanty and fluid at first—milk, cereals, farinacea, water, lemonades and broths. The further development of the case will gradually indicate eggs, and perhaps—in a few selected instances only—alcohol in addition to other medicinal stimulants. It is more, however, a slow convalescence that requires it than the course of the disease itself. In this respect it appears to differ somewhat from other infectious diseases, particularly typhoid fever and diphtheria. In the latter, the doses of alcohol should be high from the beginning.

If there be a high temperature, cold water is not indicated either as a bath or as a pack. The irritating cough, which often requires opiates, is rather increased than soothed by it; the characteristic bronchitis of influenza does not bear it; the frequent copious perspiration contraindicates it and so does a weak heart under all circumstances. On the contrary, when there is much muscular pain and restlessness, a warm bath is often beneficial. Hot baths should be avoided unless a very short one in an occasional collapse, and Turkish baths require stronger heart-muscles that we are apt to meet in pronounced cases of influenza. While many common cases of pneumonia, with fair circulation, are apt to do well with cold packs, influenza pneumonias do better with warm ones.

According to Ditmar Finkler, of Bonn, quinine occupies a front rank. Out of eighty of his patients treated with quinine, only three made their appearance at the dispensary

a second time, while of those treated with other drugs, nearly one-half reappeared twice or more frequently. The favorable action of this drug has been observed by Eujardin-Beaumetz, Teisser, Carriere, Pribram and other. Mosse, to abort the disease, administered 1.0-1.25 grams the first day, sometimes also the second. Filatow has also observed its favorable effect, especially in children. Others, however, as Eichhorst, Tranjen and Bowie, had no success in the use of this remedy, and Leichtenstern believed that the cases treated with large doses of quinine did worse than those that were not so treated. In the German collective investigation reports, some praised quinine as giving brilliant results, while others were greatly disappointed in its effects.

Whenever vomiting is severe, stomach feeding is out of the question. The temporary abstinence and afterward rectal alimentation find their indication. Alcohol greatly diluted, peptones, mild salt solutions and liquid albumins are readily absorbed in the colon which, even in the smallest infant, although the fetal length of the sigmoid flexure may be persistent, is made accessible by elevating the hip and moderating the current by not raising the irrigator more than a foot above the anus. Peptonized milk, egg and broths are absorbed in part. Starch in the injection is dextrinized in the colon and thus adds to the nourishment of the enema; but though water alone were injected it would add to the circulating fluid. That is why even a large enema, given for the purpose of clearing the bowels, may add to nutrition and strength by such of the injected water as is almost invariably retained. Thus, severe vomiting should be treated with refusing to feed through the stomach. The best relief is given by morphine, rarely by ice, either internally or externally. It is not necessary to send morphine down to the stomach; absorption is easy and more readily accomplished in the mouth or throat. A tablet of one milligram may be thrown into the mouth of a child of two or four years, there to be absorbed, or half a drop or one drop of Magendie's solution may be administered in the same manner without dilution.

The indications for the treatment of influenza may be several, the high temperature in many cases, the great discomfort, the restlessness and the rapidly increasing exhaustion. In the treatment of many fevers it is their causes that require consideration; in others, however, their relations to, and influence on the body, are the main considerations. When the conditions of the latter is fair and no danger is incurred on account of the fever, it should be left

alone; when the rise of temperature, however, by itself is injurious, it should be interfered with. At all events the treatment of the symptom "fever" gives us no hope of shortening the disease in which it occurs, or of which it forms a part; on the other hand, it is a satisfaction to know that, while we increase the comfort and diminish the immediate dangers, the natural healing process is not disturbed. In this way both the justification and the limitation of the so-called expectant treatment become evident. To allow a high temperature to deteriorate tissues and exhaust the heart or brain is as injudicious as is the custom of emphasizing the number of degrees of Fahrenheit as the only valuable part of a morbid process. To be satisfied with depressing temperature is a grave mistake, but to allow pneumonia to run its deleterious course of high temperature unchecked with their full influence on the rapidity of respiration and the action of the heart and on the increase of waste is equally injudicious.

In their injurious influence on nutrition protracted infectious fevers act, first, like direct losses or like starvation, and, secondly, as immediate poisons. The younger the patient the greater is the danger from that source. That is why a high temperature without any, or with a trifling remission, should not be allowed to last, though its immediate effect may not appear very ominous. When a high temperature results in a convulsion we never hesitate to reduce it; here we admit there is a vital indication. Why, then, not reduce it while there is the danger of a possibility or probability of its occurrence? Add to these facts the disposition of the young to inanition which is caused by two main factors. The first is their rapid metabolism, the second and principal one is the relative, almost universal, insufficiency of the young organism.

Moreover, we should not forget that most of our antipyretics are at the same time nervines, analgesics and diaphoretics, thus improving comfort and metabolism. They are surely indicated when bathing is not sufficiently efficient or when baths are contraindicated; in that case they may act as adjuvants, as combinations and procure sleep and remissions. If I add that there are, however, contraindications to the use of medicinal antipyretics because of possible idiosyncrasies and of the debilitating effects which many of the antipyretic drugs are apt to exhibit, I merely say what all have experienced and what everybody should remember, viz., that no degree of Fahrenheit and no Greek name of a morbid process are the subjects of our medication, but an

individual patient. From these points of view our fever remedies should be judged.

In my paper of 1890 I said that acetanilid ought to be preferred among the poor, because of its low price, antipyrin mainly where great solubility was required for the purpose of its administration in rectal and subcutaneous injections, and that phenacetin was preferable to either when it could be given by the mouth, because of its less uncomfortable effect on the brain, the heart and the skin.

This opinion I have to modify to a certain extent, not that I object to what I said of phenacetin, but acetanilid should never have an opportunity to show what good qualities it may have in the rich or poor. It should not be used at all under any circumstances, not even in the quack preparations which now and then I know to disfigure the prescriptions of regular practitioners. Being a derivative of anilin, acetanilid is poisonous. Not only has it a sedative or rather paralyzing effect on the central nervous system, but it destroys the blood and causes anemia by changing hematin into methemoglobin, though given sometimes in small doses. That is what gives rise to cyanosis so often observed, more often than after the administrations of any other of our modern analgesics and antifebriles. The poisonous effect is even noticed when the drug is used externally, mainly on the young. Examples of such cases were reported at the meeting of the Philadelphia Pediatric Society, April 11, 1899.

Antipyrin, when employed during normal conditions, increases the tension of the pulse and blood pressure—therefore it is contraindicated in hemoptysis—and produces perspiration. It works more on the general central nervous system than on the center of circulation, that is why it acts—while being antipyretic—as a sedative and analgesic. But it should not be considered as a nervine, for its action appears to be ushered in through the mediation of the blood and blood-vessels. The body temperature begins to decrease within fifteen or twenty minutes after the first dose; to render its antipyretic effect more tangible and persistent, it should be followed by a second within two hours. This rule, however, does not hold good when the drug is given for its sedative or analgesic or for its slight anti-rheumatic effect. Its general effect is mostly good, but its undesirable effects are many. Otto Seifert quotes eight authors of note who report disagreeable effects of antipyrin; they were observed in the gastro-intestinal, nervous and circulatory system, in the skin and in the mucous membranes. Phenacetin is

dismissed with ten. It resembles acetanilid, but is very much milder in its effects. The transformation into methemoglobin takes place after large doses of several grams only. Half gram doses for antipyretic, gram doses for analgesic purposes, are recommended. The doses to be given to infants and children should be from fifteen milligrams to three centigrams (gr. $\frac{1}{4}$ - $\frac{1}{2}$).

Salipyrin, the salicylate of antipyrin, is employed by Finkler. While antipyrin causes perspiration, sometimes excessively so, he reports a case in which hyperidrosis was instantly cured by salipyrin. It should be given in twice the doses of antipyrin, is usually better tolerated than the latter, particularly by neurotic or neuralgic patients, because of the relative absence of accidental effects.

Salophen is extolled by Drewes, of Hamburg, who prefers it to salicylic acid and to salicylate of sodium, mainly in the nervous form of influenza. Adults took from one to six grams, children from three to five decigrams. Finkler, who quotes him, adds: "I believe that most physicians have arrived at the point where they would not like to be without these preparations in influenza, but it should certainly not be forgotten that reports of this kind have quite frequently been used for advertising purposes."

There is something else that should not be forgotten, viz., that there is hardly a disease which has as great a tendency to cause exhaustion and numerous other nervous symptoms, from languor to heart failure, as influenza. If there be the slightest indication of such a danger, none of the above-mentioned drugs should be given without the addition of a stimulant. That should, according to what I said before, rarely be alcoholic. Caffein preparations are vastly preferable; mainly the salicylate (or benzoate) of sodio-caffein, which, being very soluble and readily absorbed, is almost ideal in its effect. That is why, in emergency cases of heart failure, its subcutaneous administration may often become indispensable. The use of strychnine is so well understood and so general that I limit myself to merely mentioning it.

To what extent stimulants should be given in the average or in the grave cases depends on the general conditions of the patient and on his medical adviser's knowledge of his former health and his resisting power. It is probable that in most cases some daily doses of sulphate of spartein, five centigrams (gr. 5-6) for a child of two years, will have a favorable effect. The caffein preparation I mentioned may be given in doses of from two to six decigrams (grs.

ijj-x) daily. When it appears to act as an excitant on the brain, it should be replaced by camphor in daily doses of from one to four decigrams. All these doses, however, should be much increased, when strong stimulation is required, and in an emergency subcutaneous injections of the same drugs should be used, caffen being soluble in two parts of water and camphor in four parts of sweet almond oil.

One of the best stimulants, useful in the gravest of all cases which are attended with collapse and heart failure, is sadly overlooked among us, viz., Siberian musk. I know of nothing better in the most urgent of cases. A child of two years should take of the 10 per cent. tincture five to ten minims every half hour until half a dozen or dozen doses have been taken. Musk, together with large, hot enemata, has led me over many a difficult pass, and I again offer this experience of mine, which now extends over fifty years, as a contribution to your aid in dire distress, always, however, reminding you of the fact that all these measures are not exclusive to influenza, but to all conditions of nerve exhaustion, no matter from what cause.—*Iowa Med. Journal.*

REMOVAL OF FOREIGN BODIES FROM THE AUDITORY CANAL.

By G. C. Savage, M. D., Nashville, Tenn.

Anything that is small enough may be found, at some time or other, in the auditory canal of a child, having been placed there with its own hand. I do not know that I have ever seen an adult purposely place anything in the auditory canal. I have known children, while playing upon wheat soon after it was threshed, to get some of the wheat grains into the auditory canal. In one case the wheat grain had remained in the auditory canal some five years.

Now, one word as to removing foreign bodies of various kinds from the auditory canal, and then I will pass on to the point that I wish to emphasize, viz., the softening and removal of hardened wax. The only things needed, as a rule, for the removal of a foreign body from the auditory canal are these: First, a towel, to place over the patient; secondly, a basin of water made sterile; thirdly, a syringe; and lastly, a head mirror. A foreign body that cannot be removed by a stream of water from a syringe will be difficult to remove in any other way. A foreign body that has gotten into the ear, when there has been no instrumental interference, will be found in the outer part of the canal. A foreign body, unless it is comparatively small, will not often be found beyond the isthmus of the auditory canal. If manipulative means, the

use of instruments, has not been resorted to, it is easy to remove such foreign bodies. In grown persons there is no need of anesthesia, but in children, even with the gentle stream of water from a syringe, I believe it is better to bring them under the influence of an anesthetic. Otherwise the foreign body may be driven so far back that it will be difficult to remove.

If it is attempted to remove a foreign body by means of forceps, it will slip from the grasp and be forced farther back in the canal, and every attempt made with the forceps may force the foreign body just that much nearer the drum membrane. The probe, slightly bent, is sometimes used and may also force the foreign body back. The fact is, foreign bodies have been thus forced back against the drumhead, and even into the drum cavity itself. Another thing in connection with the instrumental removal of foreign bodies is that the canal will probably be injured and we will have bleeding and swelling. None of these things will take place if we remove the foreign body by means of the syringe. It is, of course, possible to drive the foreign body back in the canal with a syringe, but not so if proper care in directing the stream is taken. The stream of water should be directed where there is most space between the foreign body and canal wall, and then, as the return flow comes back, the foreign body usually comes with it. The position of the head, of course, can aid. If we find the foreign body so large as to almost fill the auditory canal, we may aid the stream of water by posing of the head, by inclining the head toward the side in which the foreign body is located. Bugs not infrequently get into the ears of grown people and sometimes of children. When a live creature like a bug gets into the auditory canal we should first destroy its life, which is best accomplished by pouring oil into the ear, preferably castor oil or olive oil; or if there is no oil at hand we may use warm water and simply drown the bug.

Now we come to the study of accumulation of wax in the ear, which is nothing more nor less than a foreign body. In one case one ear had been plugged with wax for some thirty years, the patient being a maiden lady; but usually, when the ear is filled with wax, the patient is so deaf that he or she will seek relief sooner. These patients are so annoyed by the deafness and the noises that they often come at once to the physician or aurist to get relief. For a long while I tried to soften the old accumulations of wax with a solution of bicarbonate of sodium, glycerine and water. I would tell the patients to take a pinch of bicarbonate of sodium, a tea-

spoonful of glycerin, and a teaspoonful of water, instilling some warmed into the ear. I would have them repeat this two or three times a day for one or two days, until soft enough to be removed with the syringe. I am thankful to somebody—I do not know who it is—for a method that is very simple, and which I propose to give. An author first gave the thought in the *New York Medical Journal*, and for some two years I have been following out that thought, which is to soften the wax by the instillation of dioxide of hydrogen. The peroxide is practically as good as the dioxide, except perhaps the peroxide is a little more acid and irritating than the dioxide. This is warmed and allowed to remain in the auditory canal five or ten minutes, and usually in this short time it will soften the hardest kind of wax so it can be readily removed with a stream of water. After instilling the dioxide of hydrogen five or ten minutes, if the accumulation of wax is recent, a brownish frothy liquid will be removed by the syringe, the wax being actually dissolved. Sometimes the plug, being only loosened by the dioxide, will be easily washed out.

There are people in every part of this country who are sufferers from the over-accumulation of wax in the auditory canal, and it is possible to soften the wax and remove it, as I have described, in a very few minutes.—*Medicine*, Feb., 1901.

ADENOIDS.

By ROBERT M. LAPSLEY, M.D., Keokuk, Iowa.

When Dr. Meyer, of Copenhagen, Denmark, in 1868, called attention to the growth of adenoid tissue in the vault of the pharynx, he paved the way for treatment for a class of cases that had much to do with improper development of the nose, throat and ears, and not only this, but the whole system. Mouth-breathing we know to be one of the most vicious of habits of childhood and to interfere much with proper development. I am most anxious to emphasize the local effect on the nose and ears. Dench, in his text-book on diseases of the ear, states that more than one-half of the cases of diseases of the tympanum are due to adenoid vegetations in the vault of the pharynx. This seems probably true when we examine these patients in childhood where the adenoids are still plainly shown and the connection easily traced.

Granting that fact and considering the importance of hearing, adenoids are among the most important of infantile

affections. With all the literature written in regard to adenoids since Meyer's important work and the brilliant results these operations give, we still find these cases largely neglected and still find many children going on to permanent and irreparable deafness, with either no attempt to check it or such futile attempt as the removal of the pharyngeal tonsils only. The percentage of people hard of hearing will likely be greatly lessened as the importance of this subject becomes more generally recognized and these children are treated properly in the initial stages. "Delays are dangerous," says the child's copy-book, and in this trouble we have no better motto to follow and to impress on the parents. The fact that nature is very kind in diseased conditions in general has led the laity and even the profession to procrastinate in cases of importance and expect the "child to outgrow it." In adenoids, however, even if they outgrow the original trouble, the results will be shown in a deformed and badly developed face, in poor teeth, a narrowed nose, a chicken-breast and permanent impairment of hearing.

The cause of the production of adenoids is a trifle uncertain. That they occur in childhood is generally known, and it is likely that repeated colds increase the amount of lymphoid tissue that is already too abundant in the nasopharynx; and, conversely, the presence of adenoids is the cause of repeated colds, so that a patient with a well-marked case of adenoids has a cold a good part of the time. Mouth-breathing with all its evils is resorted to and the symptoms are mostly deduced from that.

The facial expression is stupid, the normal lines from the *alæ nasi* are changed, the mouth is not closed, the upper teeth are too prominent and irregular; the parents say the child catches cold easily, and that it snores at night, perhaps very loudly, and in many cases the hearing is dull at times, and there may be earache followed by a discharge either acute or chronic. On looking in the mouth the pharyngeal tonsils are possibly enlarged, and many examiners have removed these and examined no further and thereby left the chief offender. The diagnosis is made complete when the finger is introduced back of the soft palate and a soft tumor or tumors are felt, and the finger is withdrawn with blood and mucus on it. The amount of block-ing of the post-nasal space can be determined by this examination.

In cases at all marked the prognosis is poor if let alone, but no cases offer a more brilliant hope if operated on at an early date, before permanent changes in development are well marked.

The irregularities of teeth that are so common are frequently due to this trouble ; and efforts at treatment would be much more successful if the original cause was removed before attempts at regulation of the teeth. The teeth, however important, are less so than the ears, because we can put in no false ears to take the place of those destroyed by continued middle-ear disease.

Treatment, then, is imperative in a large percentage of the cases and is almost altogether surgical. The methods of surgical treatment are so well known now that a description is unnecessary. What I particularly want here is to call attention again to the importance of care in examination and to advise as to early removal of adenoids in the interest of bettering the condition of the ears of the rising generation.

I have hardly mentioned the fact that these children are not only stupid in appearance, but really are stupid, and the only salvation from partial or complete idiocy in a certain percentage of cases is early operation. The approved form of operation under a general anesthetic does not seem best in all cases. The lymphoid tissue is not very sensitive, and in my present practice I sometimes remove small amounts at a sitting for several sittings, until the vault of the pharynx is clear. This is applicable to those patients where for some reason we do not want to resort to general anesthesia.

The principal point to be noticed, then, is in all cases with above symptoms and history, and also in cases of ear disease in children, is to carefully examine the naso-pharynx and to advise early removal of all lymphoid tissue in the throat.—*Pediatrics*.

Progress of Medical Science.

MEDICINE AND NEUROLOGY

IN CHARGE OF

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THE USE OF THE SUPRARENAL CAPSULE IN DISEASES OF THE LOWER AIR-PASSAGES— A PRELIMINARY REPORT.

In the *Medical Record* of November 17, 1900, Floersheim reaches the following conclusions :

1. Indications for suprarenal powder.—The suprarenal powder is indicated in acute and chronic bronchitis, bronchiectasis, asthma, congestion and edema of the lungs, hemoptysis, and in some cases of pulmonary tuberculosis, especially in those associated with hemoptysis.

2. Method of administration.—The suprarenal powder was administered in the form of three-grain capsules on account of their convenience. The powder is to be chewed without water and then to be swallowed in a few moments.

3. Rapidity of the action of suprarenal powder.—The action becomes apparent in from two to fifteen minutes.

4. Permanence of the action of suprarenal powder.—In some cases the action of the suprarenal powder was permanent, while in the majority of cases the action was temporary, continuing from ten minutes to six hours.—*The Therapeutic Gazette*.

HICCOUGH.

Dr. J. Noir, a French practitioner, reports his experience in carrying out the observation of Prof. Lepine, of Lyons, on the effect of traction on the tongue upon the apparently dead body in relation to its effect on hiccough. Prof. Laborde first suggested this line of treatment, and Dr. Noir has now tried it with success. He reports first on a case of a 6½-year-old extremely nervous girl who had spasms of violent hiccoughing lasting for as much as six hours. She became so much exhausted that her parents had given her up for dead. Traction on the tongue, however, for a minute and a half, immediately stopped the spasm, and it did not recur. Another case reported is that of a tuberculous and cachectic

patient affected with diabetes who had been troubled for several days with severe spasms of hiccoughing. Every form of medicinal treatment was tried without avail. Traction on his tongue was continued for about two minutes with like favorable results; however, the spasms recurred after several days. The patient then practiced traction on himself with equal success. It is to be hoped that other observers will make a trial of this treatment and report their results.—*Progres Medical*, Vol. xxix, p. 5.

THE COMPENSATION OF SENSORY ATAXIA.

The treatment of *tabes dorsalis* has been further advanced a notch or two by the institution of the so-called compensatory movements for atactics, as advanced by Frankel, V. Leyden, Goldscheider. These men claim that the ataxia in some measure can be overcome by putting the patient through such movements in order to compensate for the loss of co-ordination which goes with this disease. Their ideas have been purely empirical in the beginning, and now, in explanation thereof, comes the experimental work. Such experimental work has lately been done by Bickel, of Berlin. In a preliminary note, which he read before the Verein für Innere Medicin (Berlin), on November 25, 1900, he endeavoured to explain just how these compensatory therapeutic movements acted in overcoming the ataxia of *tabes*. It was stated that when he cut through the posterior spinal nerve roots in dogs we have an ataxia which gradually disappears without a regeneration of the cut nerves. In order to explain this phenomenon we may take two positions: 1. The interrupted muscle-tonus is once more restored; even when the nerve roots are cut, a part of the muscle-tonus remains, in spite of the traumatic change that has taken place. That means that there is no restoration, but simply an awakening of a slumbering force. Again (2), we may explain the phenomenon in another way; it is possible that other sense organs have taken the place of the cut nerves and compensating therefor. An organ which may do this is the labyrinth. The speaker stated further that he has performed this experiment on a dog; if the sensory nerve roots are cut there follows an ataxia. If, while this ataxia is existing, both labyrinths are extirpated *in toto*, there is no compensation and the ataxia persists, instead of disappearing as before stated.

It must not be forgotten, however, that the co-ordination center in the gray matter of the cerebrum has a good deal to do with the regulation of movements. This has been

proven by the experiments on dogs of removing the sensory-motor regions on both sides of the brain, whereupon we get an ataxia just like that of the experiments above narrated. There follows first a pseudo-paralytic stage and then the true ataxia, which disappears gradually, owing to the compensation of other parts, viz., the posterior sensory roots and the labyrinthine canals.

This work is of intense interest to both physiologists and to practical neurologists. It promises to develop a new field of therapeutics as already laid down by V. Leyden and others. We are well aware of the inadequacy of the methods now in vogue for the treatment of tabes. Some time ago great hopes were laid on the so-called method of stretching the spinal cord, but the method has practically been discarded now. The practical movements of compensation seem to be based upon known physiologic laws, and hence we bespeak some measure of success for them.—*The Stylus*.

THE STATUS OF CHILDREN PRACTICE.

The woman's century has passed, and we are at the beginning of the era of the child. The last seventy-five years can be considered a forerunner of this era in two ways: in the establishment of many charitable institutions for children only, and in the wonderful progress made in the study of their ailments. The days of castor oil, calomel, paregoric, hoarhound and ipecac have passed for a physician who knows enough of physiology to judge, of pathology to determine, and of love and patience to devote to these little ones.

No reflection, no slur, upon the old doctor for those proceedings; he did what he thought best; and a coming century may smile at our feeble efforts also. But when we hear a child cough we first examine his chest for a possible bronchitis or broncho-pneumonia; we watch the motion of both sides of the thorax, to be able to exclude pleurisy and an exudate; we carefully listen to the quality of the cough, examine the child's throat and take the temperature, feel for possible enlarged glands at both sides of the neck, and then prescribe. "Why, doctor, our old family physician just looked at my babies and prescribed for them; it did not take him so long," remarks the venerable grandmother of the little patient; and if you have judgment, do not answer; the argument cannot be refuted. But the mother of to-day knows only too well that your work requires more time, more knowledge, and appreciates your painstaking. Or do you still expect to give a dose of ipecac, regardless if the child has a catarrhal tracheitis or a diphtheritic croup cough?

The writer witnessed the following case: Called at midnight as second physician to a child that had only a hoarse cough in the evening; he found the little sufferer suffocating with a diphtheritic swelling of the larynx, and injected antitoxin; the child recovered in about ten days. The first physician, upon inquiry about his diagnosis of the case, stated: "Oh, just a little cough; does not amount to a rap." Truly, such examples must vanish. Whatever introspection we may have in our mental storehouse of knowledge, let us never overlook where we are short.

The secrets of the artificial feeding of infants are beginning to be unravelled by our perfect knowledge of the constituents of mother's milk and the mode of its digestion, the perfect and honest analysis of the artificial foods and the physiology of their absorption. Mashed potatoes and barley, farina and mush are now relegated to a later stage, when ptyalin and amylopsin have appeared to convert starches (after the ninth month), and milk in its perfect form, sterile, *but not sterilized*, is given to infants.

The knowledge of the spread of diseases by milk is as new as bacteriology, the unfitness of poor milk as recent as medical chemistry, and the blessing of the diphtheritic antitoxin is more recent than either; and when we pursue the proper course on such lines we will seriously object to the marriage of consumptives, syphilitics, insane, alcoholics and epileptics, lessening the hereditary burden of an innocent newcomer into the world. A system of proper raising will bring a healthful and strong generation of good minds, for there is a healthy mind in a healthy body.—*Interstate Med. Journal.*

CHOREA AND ITS TREATMENT.

The treatment of chorea is one which appeals to both the pediatricist and the neurologist. It is brimful of goodness, and sends joy to the heart of the practitioner who has to deal with this disease. In no other nervous disease is treatment with medicaments so satisfactory as in the disease, chorea. Intelligent treatment in this disease means cure for the patient and thanks from the parents. The disease has been sadly neglected in the past, and many cases have been allowed to continue, mainly because the medical attendant has been in the habit of regarding this disease rather "untreatable." This should not be, as we know of decided success in its treatment where it is intelligently carried out.

In first order, children with chorea should be kept from school. There are several reasons for this: First, because the disease becomes worse when children are sent to school, where their surroundings tend to make them more irritable and peevish, and hence, accentuate the disease. Secondly, it is a well-known fact that the disease is contagious in the sense that one school-child with chorea will infect the whole school room. A remedy which should be tried first of all in every case is arsenic. It can be given in the form of Fowler's solution or as acid arseniosi. Together with arsenic, the galvanic battery should be utilized. The cathode poles should be applied over the region of the heart, and the anode over the spinal column, using about five or six milliamperes daily. After arsenic we can recommend antipyrin in this affection. It has a splendid effect, and its use should be rigorously persisted in until the benefits that usually come are seen in the given case. Utmost quiet should be enjoined upon these children. They should be put to bed early and should arise late in the morning. Applications of cold have been recommended, usually over the spinal column, although in many cases warm applications will be found more agreeable. Strict attention should be paid to the heart and its working. We know that endocarditis is often seen in this disease. With the following out of such treatment as above outlined, it can be confidently assured that beneficial results will accrue.—*Interstate Med. Journal.*

THE MANAGEMENT OF SCARLET FEVER.

In the management of scarlet fever, consideration has to be given to the fever itself, to the throat, the eruption and the complications arising during the course of the disease, depending upon the invasion of streptococci, the absorption of toxins and the development of nephritis. The first symptoms the physician has to combat are those of the throat. The usual pain and swelling, as well as the exudate, are alarming to the family and patient, as well as to the physician, and should receive as much attention as a diphtheritic throat. Above all, each case should be examined for the bacillus diphtheria. As treatment, large irrigations of warm water containing a small amount of carbolic acid or listerine should be made with the fountain syringe; older children should be made to gargle a saturated solution of chlorate of potash, a 1-500 potass. permanganate or peroxide of hydrogen diluted 1-4. Around the neck and throat applications of either ice or hot flannel should be made.

If pain in the ears accompanies the sore throat, hot applications should be made to them. Ordinarily the first throat symptoms do not lead to suppuration of the middle ear. Internally, a mixture of one-fiftieth grain corrosive sublimate in a teaspoonful of the essence of pepsin makes a grateful medication. Locally, it is best to use only the mildest applications if anything is necessary besides the irrigations. In cases where local treatment seems indicated, the use of the ordinary nasal spray with a weak solution of bichloride of mercury, the insufflation of sulphur lotion or powdered calomel, or, in extreme cases, the painting of the fauces with an aqueous solution of tincture of iodine, has proved successful. If the diphtheria bacilli are found, the antitoxin must be administered immediately.

The fever should only be treated if excessive; a temperature not going higher than 102.5° needs no further attention than a sponging with tepid water several times a day. If the temperature goes above 102.5° , or if there are severe nervous symptoms, the sponging should be used more vigorously and more frequently—even as often as every three hours. Of the antipyretics, phenacetin, protected by caffeine or strychnia, acts favorably and safe, and can be given every two or three hours, in doses ranging from one to three grains for the first ten years of life.

The eruption calls for hardly any treatment. The less grease is applied to the skin, and the more active the skin is kept, the better we counteract the effects of the toxins on the kidneys. The patient must be kept warm. A flannel union suit accomplishes this, and also acts as a protector against the dispersion of the desquamation. The room in which the patient lies should be kept at a temperature of 76° to 80° . If itching is severe, the skin should be rubbed with alcohol or oil of eucalyptus after each sponging. When desquamation takes place, the patient should receive a hot bath daily, be rubbed vigorously, and have his underwear changed daily.

Of complications, the most dangerous are secondary infection with abscesses and nephritis. The minor complications, such as diarrhœa, a swollen spleen and gastric irritation, are due to absorption of toxins, and yield to a thorough purge of castor oil or Epsom salts.

The secondary infections are dangerous depending upon the organ affected, the number of foci and the rapidity of destruction. Little more need to be said about the secondary throat infections. These must be treated as the first, only more vigorously and with more regard for the more

serious results. Adenitis is a frequent concomitant of the secondary sore throat, and must be closely watched for abscess-formation. Of great importance is the early evacuation of an abscess pointing in the throat or located in the tonsils. Next in frequency of infection are the joints. These must be immobilized at the first complaint of pain, and incised and irrigated as soon as pus develops. Endocarditis, pericarditis and abscess of the liver are to be watched for in all cases in which the temperature does not promptly recede to normal.

SCARLATINAL NEPHRITIS.

Every case of scarlet fever should be handled as if the patient had a severe glomerulo nephritis from the beginning. The whole dietetic and medicinal management of scarlet fever should have as its main aim and object the integrity of the patient's kidneys.

The diet should be an absolute milk and water diet for the first twelve days; for the following eighteen days, a simple farinaceous diet, to the exclusion of all nitrogenous food, of which, of course, eggs, meats and broth head the list. The atmosphere in which the patient moves, his clothing and bed should be arranged to promote excessive action of the skin. The state of the digestive tract must be kept in as free a condition as is possible, and liquid, copious action of the bowels favored. All excretory action possible should be removed from the kidneys and thrown on the skin and bowels. Under such conditions we can fairly hope to limit the occurrence of nephritis; or, if it occurs, as it frequently will, in spite of our best efforts, counteract its dangers and change a frequently fatal disease into a simpler condition. The danger of nephritis begins with the tenth to the twelfth day. If at this time there is evidence of albumen, the patient should be purged, and should receive a hot pack twice a day and kept in perspiration an hour each time; if suppression of urine occurs, the potassium citrate in thirty grains every two hours, or diuretin, ten grains every three hours, should be administered. Large doses of Epsom salts per os or enema, preferably the latter, should be given, and a dilatation of the blood vessels encouraged by the administration of nitroglycerin, one drop every hour, or pilocarpine hydrochloras one-eighth grain every four hours.—*Interstate Medical Journal*.

TREATMENT OF ACUTE ARTICULAR RHEUMATISM.

Acute articular rheumatism is, fortunately, one of the diseases for which we possess a specific remedy. Sodium salicylate, salicylic acid or the oil of wintergreen act as favorably in acute articular rheumatism as does quinia in malaria. There is a dread, though, of the use of these drugs, which limits their use as well as their beneficent results. Acute articular rheumatism, when seen early, is very amenable to the salicylate treatment; and by cutting an attack short, we limit the dire results the disease achieves in the vascular system. The reason of a good many prolonged attacks of rheumatism can be found in the administration of doses entirely too small to influence the pathogenetic factor of the malady. In order to reach the desired result with sodium salicylate, we must stop short of no smaller doses daily than such as will produce thorough salicylism. Begin with a daily dose of fifteen grams, or one-half ounce, for a man weighing one hundred and fifty pounds, divided in three hourly doses, or thirty grains every three hours, the first day. On the second day the dose is cut down to one-half, and again, on the third day, by one half. If the patient's temperature falls to subnormal, the drug is discontinued for one day, and strychnia administered on the following day. Seven grains every three hours are again administered for two days. Occasionally we meet cases which respond badly to the salicylates. In these we have to rely on the alkaline treatment, and should administer large doses of soda bicarbonate, potassium citrate and lithium citrate. But no case of articular rheumatism should be allowed to go on without at least a fair trial of the specific treatment.—*Interstate Medical Journal*.

THE GROWING NECESSITY FOR SANATORIA FOR THE TUBERCULAR.

Dr. William Porter, St. Louis, in a recent paper expresses the following reasons on this subject.

The increasing distrust in the efficacy of climate as a cure for tuberculosis is largely due to its indiscriminate recommendation and ignorance of needed conditions for the special case. The Eldorado for all cases has not yet been found, and the misery and disappointment from failure in the search is beyond compute. The physician, before sending a patient from home and home comforts, should thoroughly study not only the climate selected, but its adaptation to the

special case, and if unable to come to a conclusion the patient should have the benefit of the doubt and be kept at home. A crying evil, against which the intelligent physicians at our best health resorts are protesting vigorously, is that so many patients are sent to them too far advanced to be in any way benefited.

The victim of tuberculosis is a menace to the public. Every expectoration has the possibility of harm, and already many of our best resorts are known to be infected. What wonder! Each tubercular case, we are told, may expectorate billions of bacilli daily which may retain their potency for months. In twenty cities in this country there were 25,000 deaths in one year. The average duration of these cases is over two years. In other words, 50,000 citizens in twenty of our best cities is a living danger to this extent to all the others. It is estimated by competent authority that 10,000,000 of the people now living in the United States will die of tuberculosis.

A hopeful view of this subject is that, owing to the advance in the knowledge of the cause and manner of transmission of tuberculosis, there is already a decrease in the death rate. The deaths per 1,000 in twenty cities in 1888 was 33.03 per cent. Ten years later it was 20.23 per cent., a decrease of 38.08 per cent. or 4,547 lives saved to the State.

The advantages of the sanitarium are many. They are educational institutions that by teaching and illustrating proper exercise, suitable diet, hygiene in its many applications, and by the encouragement given by careful and conscientious reports, prove to the public that tuberculosis is a curable disease. In them we have the best adaptation of special care to the individual as well as the protection of others from danger of transmission. The first sanitarium was founded by Brehmer, of Gorbardsdorf, less than fifty years ago. Now similar institutions are found all over Europe and America. The whole world is acting on the hypothesis that tuberculosis may be stamped out. To do this the best institutions are needed, and the most advanced ideas and positive action required.

Other advantages are the mental rest and quiet that are often so much needed; a proper diet that will favor assimilation—the great antagonist of tubercular disease; open air treatment which can be so modified as to be devoid of danger, exercise suited to each case; hydrotherapeutics, so valuable in many instances of impaired function, and the special care that can be taken of the various complications such as fever

laryngeal invasion, hemorrhage and excessive cough. It is here that the serum treatment, that certainly marks an advance, can be used to the best advantage.

What as to results? In four of the best known sanatoria in this country 67 per cent. have been benefited and 25 per cent. cured. What stronger argument can be used in an appeal to a government for aid, which does not hesitate to send armies and navies around the world to rescue a few citizens from a savage foe? Yet we have here a foe that destroys more than were ever slain in battle and more insidious than ever came in the guise of war. I believe that the day is coming when the tubercular patient will be cared for as efficiently as the patient with small-pox or yellow fever, and that day cannot come too soon.—*The Stylus*.

PNEUMONIA.

Treatment—The armamentarium for the first stage of pneumonia—that of general malaise and congestion—is made up of counter-irritants, arterial sedatives, antipyretics and anodynes. Cases of incipient pneumonia are sometimes nipped in the bud by the timely employment of sinapsisms over sensitive pulmonary areas, together with the administration of aconite, acetanilid, or veratrum viride, and also by the mixed arterial sedative and anodyne formula of morphine sulphate and antimony.

In no affection is it more important than in pneumonia to treat conditions more than the disease itself.

In the second stage, that of infiltration and hepatization, arterial sedatives, antipyretics, and even the counter-irritants should be employed with the view of limiting the area of infiltration and hepatization so far as possible. It is usually in this stage that a physician's services are first enlisted. It is at this stage, when the progress of the case in hand has been arrested or held in abeyance, that the carbonate and iodide of ammonium are especially indicated, while only sufficient of the antipyretics—as, for instance, sodium salicylate—is employed to keep the temperature well in hand. It has seldom been found advantageous to combine opium with the prescriptions regularly employed. Opium in the form of Dover powder is best given alone when indicated. As the stage of resolution is approached, serpentaria in the form of the fluid extract, combined with ammonium carbonate and liquor acetatis, is of great advantage.

Cups, both wet and dry, applied to relieve the pleuritic stitches during the early active inflammatory process, are decidedly helpful.

In the third stage, antipyretics are discontinued, alternatives are brought forward, such as corrosive sublimate and iron, the iodide or carbonate of ammonium, administered in increased doses. Strychnine sulphate is, perhaps, employed, or, if the case has been complicated with grippe, it has been used from the beginning of the second stage. If resolution is delayed or tardy, tincture of iodine and cantharidal plasters are employed to vesicate the surface and hasten absorption.

The affected lung, once restored to its normal condition, or, frequently pending such termination, the official formula of the compound syrup of the hypophosphites is eminently serviceable in favoring general reconstructive metamorphosis. C. Z. Weber. (*The Monthly Cyclopædia of Practical Medicine*, Nov., 1900)—*Iowa Medical Journal*.

INFANTILE SCURVY.

The author agrees with most observers that infantile scurvy is due to some deficiency in the diet of the patient, the defaulting factor being chiefly citric acid. Henkel found that milk contained 0.9 to 1.0 grains of citric acid per liter, and Goeldner found that citric acid was present as a calcium salt. As calcium citrate is best soluble in cold water, the author reasons that sterilized milk being most apt to be deficient in citric acid is, therefore, a cause of infantile scurvy. He maintains that pasteurized milk is a more appropriate food for infants, owing to the fact that in the process of pasteurization the temperature reached is comparatively low and the solvent power of the milk proportionately less interfered with. In order to prevent the occurrence of scurvy in milk-fed infants a sufficient supply of fresh milk should be resorted to, or if there is a contra-indication for that, pasteurized milk may be used. Should there be a special indication for boiled milk, the deficiency of citric acid can be supplied by a contemporaneous administration of lime juice, or of citrate salt; furthermore, any water used as a diluent to the milk should be added before the boiling, thereby making the fresh mixture a less concentrated solution of citrate than the undiluted milk, and, therefore, probably less likely to suffer loss of the salt by its comparative insolubility on boiling and thereafter. The milk should not be poured off when hot, but should be allowed to cool in the vessel in which it was boiled, and be well stirred when cool enough in order to re-dissolve the citrate as far as possible.—Dr. C. E. Corlette, *Brit. Med. Jour.*—*Post-Graduate*.

SURGERY.

IN CHARGE OF

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SOME POINTS IN THE MAKING OF PLASTER OF PARIS JACKETS.

(Albany Med. Annals.) By Dr. J. V. Hennessy. The author describes the case of a girl twenty-two years of age, who weighed 130 pounds. She had Pott's disease of the lower dorsal vertebrae and paraplegia of two years' standing. Ordinary methods of applying a plaster jacket by suspension failed through syncope; in the recumbent position, faulty position spoiled them, and the patient could not sit.

The mode adopted in this case was to make a form of plaster of Paris from numerous measurements giving width, depth and girth at hips, waist and bust. On this an ordinary knitted cylinder was stretched, and the plaster applied as upon the human form. The advantages of this method of making a plaster of Paris jacket are numerous, although the trouble and care are considerable. In the first place, certain modifications of form can easily be made, as may be seen in this specimen. The dorsal deformity is exaggerated, leaving a considerable space so that the spinal protuberance may not rub against the jacket. Next, extension of the trunk may be increased by increasing the length between the crests of the ilium and the axilla. The waist measurement may be diminished and gradually widened upward, giving the support to the trunk which is so necessary, and any other modification of form which may, in the judgment of the maker, add to ease or efficiency. Again, a jacket may be applied to a form so built up with ease and deliberation, which is impossible with the often tired and moving patient. The other points apply to a jacket, whether made upon a form or upon a patient. First, the ordinary plaster of Paris roller bandage being used, a jacket is made as under ordinary conditions, except that much fewer thicknesses are employed, say, six or seven thicknesses of crinoline and plaster. This, having been allowed to set, is cut up in the median line, removed and allowed to thoroughly dry. We then have an

extremely light jacket which would certainly have little sustaining power. It is then covered with sheepskin, fastened on by applying glue (Page's prepared) to the inner leather surface and to the surface of the jacket. First, a binding about two inches wide covers the cut median edges, then an encircling piece of leather is applied to the upper third of the jacket, the edges projecting above being turned inside, and there forming a binding for the top. The same is done for the bottom third, these pieces reaching to the median line and extending so as to form a double thickness over the binding in the median line. To this, shoe hooks are fastened for ease in lacing. The leather used is a thin sheepskin of inferior quality, a whole skin costing only fifty cents. The leather, glue and plaster combined form a light, stiff and decidedly durable corset. In certain parts where more strength may be deemed necessary, one or more extra thicknesses of leather may be easily applied, as in this jacket, where an axillary pad may be seen under the binding.—*Journal of Surgical Technology.*

FOREIGN BODIES IN THE NOSE.

Not infrequently children are brought to a doctor to have a foreign body removed from the nose, after kind but misguided efforts on the part of parents, friends, or even some physician, who endeavoured to remove the offending body, and, as a consequence, succeeded in pushing it farther back than it was in the first place. In these cases it is best always to give a few whiffs of chloroform, just enough to quiet the patient and have him hold still. With the aid of a head-mirror throw a strong light into the nasal cavity, and determine, if possible, the size and nature of the body. If the size is not too great the substance may be dislodged without much trouble by using a bent probe. An instrument that has served well in many cases is the bent hook, found in nearly every pocket-case of instruments. The use of forceps will, in nearly all cases, increase the difficulty, and I have seldom seen a case where they were of any service. My favorite instrument is a hook with a long curve, and with a point sharp enough to penetrate a body of moderate hardness. With this I have removed young peaches, beans, shoe buttons, pebbles, etc., the curve being long enough to roll the harder bodies forward without losing the contact hold. If the body is not far back in the nostril, no efforts having been made to dislodge it, the following directions will often be sufficient: Close the free nostril firmly by pressure of the finger, and putting your

mouth over the child's mouth—the mouth of the child, of course, being open—blow suddenly, and with considerable force. This will often force the body out of the nostril. This method may not be as strictly professional as some of the others, but I have known it to succeed in many cases.

When a child is brought to the office with a discharge from one nostril, and if the child is right-handed, it will, in the most of cases, be from the right nostril, it is always safe to examine carefully for a foreign body, and in the majority of cases it will be found. A probe is one of the best diagnostic instruments in these cases that I know of. The nostril must be well illuminated. Never risk unnecessary destruction of tissue by groping in the dark. It is much better to allow the patient to go into some one else's hands than to make a diagnosis in the dark.—*Cincinnati Ec. Med. Jour.*

OTALGIA.

In hysteria and neurasthenia we frequently find otalgia as a prominent symptom. In this condition the pain is often intermittent, and usually not symmetrical, invading first one ear and then the other. In fact, this peculiarity of the pain, together with the patient's usually exaggerated nervous condition, may be considered as particularly diagnostic.

Another condition which may give rise to otalgia is the presence of an epithelial scale resting either upon the drum membrane or upon the walls of the canal. Although this seems incredible, the removal of this epithelial debris has in more than one case been followed by an immediate and complete relief of the otalgia.

Again, the introduction into the ear of oleaginous substances, which decompose and unite with the normal contents of the canal, giving rise to automycosis, will often not only produce more discomfort, but marked and distressing pain. This condition, if not relieved, will readily give rise to an acute middle ear lesion.

Certain drugs, such as salicylic acid and its derivative, the various salts of quinine, the iodides, etc., have been known to produce more or less marked otalgia.

Malarial intoxication not infrequently produces pain in the ear by affecting the auricular branches of the fifth pair.

Nasal stenosis, especially when located in the region of the middle turbinal, are prolific sources of neuralgic manifestations in the ear.

The various neoplasms, whether located in the ear proper or in its immediate region, will many times cause otalgia.

Anemia, the luetic dys-crasia and typhoid fever are at times accompanied with more or less marked pain in the ear.

Tonsillitis, pharyngeal and laryngeal ulcerative process, whether tuberculous or otherwise, are occasionally sources of otalgia.

The careful differentiation between true otalgia of reflex origin, or the non-inflammatory, and pain in the ear of inflammatory origin, is by no means an easy matter in all cases, but the experience of the surgeon, together with the various means at hand for making a careful functional examination, can not fail, in most cases, to result in a correct diagnosis.—*The Laryngoscope*.

ALCOHOL SOAP FOR STERILIZING INSTRUMENTS.

R _y	Olive oil.....	6 parts
	Caustic potash.....	7 parts
	Alcohol	30 parts
	Water	17 parts

The caustic action of potash is counteracted by the olive oil and water. The instruments are thoroughly washed with this soap or only wrapped in cotton saturated with the solution.—*Interstate Med. Jour.*

DR. KARL GESSON.

CATGUT FOR SUTURES.

With the many new processes of sterilizing catgut, it has again come to the front as a deep suturing material. Of course, its easy absorption makes it the most desirable material for that purpose; and that it has not found general favour is due to the late infections following its use. These infections are accounted for by the fact of only being able to sterilize the outside of the gut, while, as soon as absorption takes place, bacteria inclosed in the deeper layers become virulent. With our various new methods of asepticizing the gut and its further antiseptic treatment, infectious agents must be looked upon as of an extraneous source rather than directly due to the catgut.

Dr. Elsberg gives a remarkable sample, and, as it seems an efficient method for preparing catgut, it is here appended. The fat is removed by immersion for forty-eight hours in a solution of one part chloroform and two parts ether. After this has been allowed to evaporate from the gut, it is tightly wound in short strands upon glass slides and immersed for

thirty minutes in a saturated solution of ammonium sulphate in water. Then it is washed in sterile water or in a weak solution of bichloride or carbolic, and preserved in alcohol. Catgut prepared in this manner has been found remarkably strong and pliable, and is quickly absorbed from the tissues. If desired to chromicize the gut, it is only necessary to substitute a one to one thousand solution of chromic acid in water for the plain water used in making the saturated solution of ammonium sulphate.—*Interstate Med. Jour.*

A RAPID AND SIMPLE OPERATION FOR GALL STONES FOUND BY EXPLORING THE ABDOMEN IN THE COURSE OF A LOWER ABDOMINAL OPERATION.

The author reports eight cases operated on for gall-stones under the circumstances described in his heading.

When a primary incision is made in the lower part of the abdomen, either in the midline or, as in one case, over the site of the vermiform appendix, the hand is introduced into the abdomen, hugging the anterior abdominal wall, conducted up over the omentum and the colon as far as the liver, where the gall-bladder is easily discovered as a somewhat tense or flaccid sac. It is his practice to squeeze the gall-bladder and note the rapid collapse, showing that the cystic duct is pervious. Any stone present is easily felt through the thin walls by palpating from the cystic duct downward to the fundus of the gall-bladder. In order to remove a stone the gall-bladder should first be emptied by compression between the thumb and two fingers. This allows the stone to be hooked up by the first and second fingers to the top of the bladder, where it is then lifted firmly against the abdominal wall, which bulges forward distinctly. Care must be taken not to allow any loop of intestine or the margin of the liver to intervene between the bladder and the abdominal wall.

An incision 4 or 5 cm. in length is now made with the free hand down through the abdominal parietes, over the eminence, directly upon the stone, cutting straight through layer by layer in a vertical direction. The white peritoneum is easily recognized, and when cut the two edges are caught by clamps. As the peritoneal incision is made larger the gall-bladder, with the stone, appears in the incision. It is opened and its edges caught with clamps, and then the incision is made large enough to evacuate its contents. The stone is apt to pop out. The edges of the bladder are now united by a fine silk suture.

If the gall-bladder is normal it is unhesitatingly dropped back without a drain. If the walls are diseased the bladder, after being closed, is dropped, and a small drain inserted. The abdominal wound is then closed and the operation completed within a few minutes of its commencement.

The primary operation in the eight cases was: 1. Lateral incision over appendix; 2. Median incision—hystero-myomectomy; 3. Median incision—myomatous uterus; 4. Median incision—cyst of right ovary; 5. Median incision—ovarian cyst; 6, 7 and 8. Median incision—hystero-myomectomy.

The author says: "I offer no apology for moving the foreign bodies by an operation so simple and so safe when the abdomen is once opened for some other more serious cause. I need but to refer to the distressing sequelæ of a cholecystitis, or a cholangitis * * * also to the frequency with which stones are associated with cancer of the gall-bladder."— Kelly, *Medical News*.

A THREE-MONTHS' INFANT WITH A CAUDAL APPENDAGE.

Watson (*Johns Hopkins Hospital Bulletin*, May, 1900) exhibited an infant with this rare anomaly before the Johns Hopkins Medical Society, March 5, 1900. His description of the case is as follows:

"It is a healthy male child a little over 3 months old. The tail springs from where a tail should, just posterior to the anus, and consists of two segments, a longer, thicker, more fleshy proximal segment, and a distal segment which is shorter, thinner and more fibrous. It is covered with normal skin. The length of the tail, when the child was three weeks old, was $1\frac{3}{4}$ inches. Forty days later it was 2 inches, and now it is $2\frac{1}{4}$ inches long, having grown $\frac{1}{2}$ inch inside of three months; apparently out of proportion to the growth of the rest of the body. It seems to have no connection with the coccyx, although it springs from the skin right over its tip. There seems to be no bony or cartilaginous tissue in it. It is well supplied with muscular tissue, and, in fact, the infant seemed to express its emotions with the tail, for when the child is crying the tail shrinks up $\frac{1}{2}$ inch in length, the distal proportion partially telescoping within the proximal one. At other times it lies relaxed at full length or curls out upon the buttocks."

The parents of the child had brought it to Dr. Watson to have the tail amputated.

ICHTHYOL is recommended by Dr. T. G. Lusk (*Post-Graduate*, xv., p. 1007) of the New York Post-Graduate Medical School and Hospital, for relieving the pain and preventing the rupture of vesicles in cases of *herpes zoster costalis*. An astringent, antiseptic drying preparation suitable for the purpose may be made as follows, says the author :

Ichthyol.....	2 fl. dr.
Magnesium carbonate.....	2 dr.
Zinc oxide.....	2 dr.
Water.....	to make 4 fl. oz.

This mixture should be sopped on and a binder applied to prevent rupture from friction. A 5 per cent. ichthyol collodion may also be used with advantage.

THE USE OF NITRITES IN THE TREATMENT OF SYPHILIS.

Browning explains that the common interference with the arteries in syphilis leads him to advise the use of the nitrites to combat this. His object was not to substitute these drugs for mercury or the iodides, but to make use of them as vaso-dilators to distend the constricted lumina, and thus allow the anti-syphilitic agents a better chance to penetrate deeper and reach more effectively the sclerosed areas in tertiary syphilis. He thinks, therefore, that "the nitrites are indicated in all syphilitic diseases of the arteries, as a rule in all specific affections attended by pain, in all syphilitic brain troubles, and especially in the later and hereditary forms of syphilis (cerebral, spinal, peripheral)."

Of the nitrites, commonly used, nitroglycerine alone is a practical agent for long-continued administration. Nitrite of amyl is too evanescent in its effects, and the nitrite of soda is too irritating to be taken long. The tetranitrate of erythrol is much preferable to the soda salt, and is also preferable to nitroglycerine, in that it does not cumulatively lose its effect, as is the case with nitroglycerine, and its action is slower. The dosage is from one-half to one grain.—Browning, *Med. News*.

TO IRRIGATE OR NOT TO IRRIGATE IN INFLAMMATION OF THE PERITONEUM AND AFTER ABDOMINAL OPERATIONS.

There is still a wide diversity of opinion among surgeons as to the value of irrigation after surgical operations and in inflammation of the peritoneum. Many operators

believe that intra-abdominal work would follow the same rules that are applied to surgery on external surfaces. The peritoneum is surgically regarded in the same light as the skin, the both having epithelial coverings. Incisions into the peritoneum are to follow the same rules as incisions into the skin, and after the removal of organs or plastic work within the abdomen the incisions are covered in by this membrane, which is to be carefully sutured. With an aseptic technique and field such a conception of abdominal surgery is an ideal one. An operation which leaves carefully approximated peritoneal surfaces and the abdomen perfectly dry at the time of the closure of the external wound leaves nothing to be desired in the aid of the healing process.

The conditions that confront a surgeon in a septic case or one in which the inflammation has extended to the peritoneal surfaces are quite different. Here the question of irrigation is still *sub judice*. Many operators are of the opinion that if the infection is of sufficient severity to have extensively involved the peritoneum irrigation will be of no value, and, on the contrary, may do harm by diluting and spreading the infection to previously uninvolved portions of the peritoneum, and may actually aid in the absorption of toxins from the peritoneal cavity. Other equally good operators are of the opinion that irrigation does get rid to a certain extent of the infecting agent and ptomaines, and the products of bacterial growth are washed out of the abdomen.

Unfortunately, the question is one to be decided largely by the experience and opinions of individual operators, as it seems almost impossible to study it from an experimental basis, and the examination of statistics presents so many extraneous and accidental conditions that figures based upon these alone are exceedingly fallacious. So far as conclusions may be drawn from the published cases, we feel safe in asserting that aseptic operations should be conducted without flushing and without drainage. In those in which there is a general infection of the peritoneum from a suppurating focus, or in which the operation is made for the purpose of relieving septic peritonitis, it is probable that flushing and drainage is a material aid in the recovery of the patient. The flushing, if done at all, should be thorough; that is, in a wide-spread septic peritonitis, if it is to be of any value, it must not consist of the pouring of a few quarts of water into the abdominal cavity and allowing it to drain away, but it should be done with many gallons of aseptic normal salt solution. There are now a number of cases on record in

which some form of continuous irrigation has been employed with success. There is great need of further studies along these lines, as the treatment of septic peritonitis, from the operative standpoint, does not form a brilliant chapter in the mortality records.—*Medicine*.

A NEW AND SIMPLE METHOD OF STERILIZING SPONGE.

Elsberg comments on the fact that while sea sponges are by far the best agent for absorbing fluids from wounds their use has been largely done away with for the lack of reliable methods for their sterilization, since boiling spoiled their consistence and absorbing power.

After much experimentation the author now proposes a method similar to a method of catgut sterilization previously proposed by him, viz., 1. The sponges are first immersed for twenty-four hours in an 8 per cent. hydrochloric-acid solution to free them from chalk and dirt, and then washed out in water. 2. Boil for from five to twenty minutes in the following solution: Caustic potash, 10; tannic acid, 20; water, 1000. 3. Wash out in sterile water or a carbolic or sublimate solution until they are freed from the dark-brown color given by the potash-tannic-acid solution. 4. Preserve in 2 to 5 per cent. carbolic solution. Through these procedures sponges lose none of their physical characteristics, size, porosity, elasticity, softness, etc., even when boiled for an hour.

The potash-tannic-acid solution can be used again, it being necessary only to replace the water which has boiled away. Culture experiments showed that large sponges previously infected with various bacteria, including anthrax spores, were rendered sterile after less than five minutes' boiling in the potash tannic-acid mixture, followed by rinsing with sterile water.

The author thinks this simple and sure method should inaugurate a return to the use of sea sponges in surgery.—Elsberg, *Centralbl. f. Chir.*

OBSTETRICS.

IN CHARGE OF

H. L. REDDY, M.D., L. R. C. P., London,

Professor of Obstetrics, University of Bishop's College; Physician Accoucheur Women's Hospital; Physician to the Western Hospital.

PUERPURAL ECLAMPSIA.

In an excellent paper read by Dr. J. F. Moran on this subject, before the Washington Obstetrical and Gynecological Society, he ends his paper by the following statement:

The most rational and efficacious treatment of eclampsia lies in prophylaxis. When we contrast the great mortality to both mother and child, under all forms of treatment for convulsions, with the excellent results obtained from judicious management of impending eclampsia, we forcibly realize the truth of this statement.

It is now certainly known that urea retention in the blood is not the cause, as urea except in enormous doses is innocuous, also that many eclamptics die and manifest little or none of the pathological signs of uræmia. Being, however, the ultimate product of tissue metabolism, it is of value in determining any interference with assimilation. In the light of recent advances in pathology and experimental investigation the height of evidence shows that eclampsia is due to the retention of toxin or toxins elaborated on the part of the mother and child owing to failure in the process of elimination. The kidney is the channel of escape, and, so long as the renal functions are intact, the toxin can and does escape without harm. While the nature and origin of the toxin is not known the liver is usually at fault. The toxin may be absorbed from the bowel, but the liver performs the function of neutralizing the toxins which find their way into the circulation. If the liver fails the kidneys at once suffer. Prophylaxis consists of hygienic medical and obstetrical treatment. Good pulmonary ventilation, nourishing and easily digested food, frequent bathing, moderate exercise in the open air, proper clothing, the avoidance of fatigue and exposure to cold, are the principal hygienic measures to be observed. The frequency of eclampsia could be greatly diminished if more careful supervision of the pregnant woman was exercised. The perfunctory examinations of the urine for albumin during the latter weeks of pregnancy are not sufficient. It is true that in a majority of cases the danger signal is through renal insufficiency, but it must be remembered, although albumin

may be absent, the amount of urea eliminated may be far below normal. Therefore, a thorough analysis of urine, total quantity in twenty-four hours, specific gravity, quantitative estimation of urea and microscopical examination of the sediment should be made from time to time. If the amount of urine be 40 to 50 ounces, with specific gravity 1.016 to 1.020, urea above $1\frac{1}{2}$ per cent., there need be little apprehension. It should be borne in mind, however, that many pregnant women excrete less than $1\frac{1}{2}$ per cent. of urea without any apparent ill effect. In every case, therefore, the constitutional signs and symptoms should be closely scrutinized. When intoxication exists, as manifested by slight digestive disturbance, headache, etc., the regulation of the bowels and restriction of the diet will suffice. Persistent headache, vertigo, uncontrollable vomiting, disturbance of vision, insomnia, neuralgias showing involvement of the nervous system, will call for more vigorous and active measures. Free purgation, hot baths, absolute milk diet and rest in bed should be enjoined. Diuretics are of secondary importance, and of little use until the bowels and skin have been freely acted upon.

The medical treatment will vary according to the exigencies of the case. If there be pre-existing cardiac disease or chronic nephritis, remedies appropriate for these diseases should be used. In the former digitalis, strophanthus, strychnia and other heart tonics are serviceable, while in the latter nitro-glycerin is of inestimable value. In the acute nephritis of toxemia our chief reliance should be upon free catharsis and diaphoresis. Mercurials followed by salines, hot-air or plunge baths followed by envelopment in blankets, subcutaneous or rectal injection of normal salt solution frequently repeated, citrates of caffeine and lithia, and abundance of water, are the measures that have proved very successful in our hands. If, in spite of vigorous treatment, the volume of urine is not increased and the excretion of urea remains stationary or diminishes, together with the persistence of menacing constitutional symptoms, it will be necessary, particularly if the fetus is viable, to terminate the pregnancy. As a rule, if the eclamptic attack occurs during pregnancy, particularly during the latter weeks, it generally excites uterine contraction and precipitates labor. In a majority of cases the fetus dies before delivery. In some cases, however, uterine action does not bring on labor, but the child succumbs *in utero*. In this event the eclampsia usually ceases, albumin decreases or disappears from the

urine and pregnancy continues for a time or even to term. However, the fetus in a few cases lives, and, under judicious treatment, pregnancy continues.

Therapeusis of eclampsia comprises a threefold indication. Purgatives, diuretics and diaphoretics, and in addition sedation by means of anæsthetics, narcotics, venesection and emptying the uterus. Croton oil and elaterium are preferable, as they act rapidly. If possible the patient should swallow a saturated solution of magnesium sulphate, subcutaneous injection of normal salt solution, chloroform-morphia, chloral alone or in combination with bromides in milk, as an enema otherwise produces rectal tenesmus. *Veratrum viride* is greatly used in the United States. It relieves tension by depressing the heart and needs watching; the patient needs to have the pulse brought down to 60 and held there. Venesection is advocated by some, and in sthenic cases may help temporarily, but if salt solution be immediately transfused the effect is good, and is meeting with much favour. Dührssen forces delivery while Charpentier considers it dangerous. If the cervix yields and treatment medicinally fails forced delivery is best.

Therapeutic Notes.

EARACHE.

R. Camphorated chloral, 5 parts.
Glycerin, 30 parts.
Oil of sweet almonds, 10 parts.

Mix. Saturate a small piece of cotton and insert in ear. The relief will be immediate.—*Alkaloidal Clinic*.

ITCHING OF THE ANUS.

R. Sodium Hyposulphite..... 30 parts.
Carbolic Acid..... 5 parts.
Glycerin..... 20 parts.
Aqua Dest..... 450 parts.

M. Compresses wet with the solution are to be applied to the anus frequently.—Penzold, in *Independance Medicale*.

FOR GASTRIC INDIGESTION.

In cases of gastric indigestion, accompanied by what is commonly called torpidity of the liver, the following combination will be found of great value:

R. Acid, Nitromuriat. Dil.....	1/2 ounce.
Tinct. Nucis Vom.....	2 drachms.
Liq. Potass. Arsenitis.....	72 drops.
Chionia.....	q. s. ad. 6 ounces.

M. Sig.: Dessertspoonful thrice daily after meals.—
Med. News.

Jottings.

GRANULAR CONJUNCTIVITIS.

There is quoted in the *New York Medical Journal* an apparently effective method of treating granular conjunctivitis by local application of a solution of salicylate acid in alcohol, one to ten parts. It is applied on a pledget of cotton, and a few seconds are sufficient to be beneficial. There is pain at first, which may be prevented by cocaine. The recovery is rapid.

TO CLEAN HYPODERMIC NEEDLES.

In order to clean hypodermic syringe needles, occluded by deposition of material from the injection fluid, boil the needles for ten minutes in a solution of sodium carbonate. This not only cleanses the needle internally, but also restores the brightness to the external surface.—Brown.

APPLICATION TO THE EYES.

The cold cloths should be large enough to cover the lids and thick enough to retain the cold for a few seconds. Eight or ten such cloths are laid on a block of ice in a basin by the bedside and are placed on the lids one after the other, being changed rapidly so as to keep as much cold to the eye as possible. They must be frequently destroyed if there is much discharge, and new ones made. The action of the cold is to reduce the swelling of the lids and conjunctiva; it is especially important if much chemosis is present. If the cornea becomes infected, the iced cloths must be stopped, as the cold depresses the cornea and tends to increase the ulceration. Hot applications are usually substituted under these circumstances. Pads of cotton saturated with very hot water are applied to the lids and rapidly changed for fifteen minutes every three hours. This stimulates the cornea and also decreases the swelling of the lids, though for the latter it is not so effective as cold. The pupil is usually dilated with atropine as soon as corneal involvement is noted.—Dr. E. S. Thompson, *Trained Nurse*.

THE CANADA MEDICAL RECORD

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Editorial.

THE MODERN HOSPITAL.

Within the last two or three years the question of Hospital construction has taken a new phase, largely corresponding with advances made in our knowledge of disease and its prevention. Detached blocks have, for many years, been regarded as far the best for buildings intended for Hospital use. The great objection to that method is the amount of space which is necessary, and the admittedly increased cost of administration. In large cities, where the cost of land is high, this objection is one which assumes very considerable importance. It was this fact which somewhat recently led the Committee of Management, of Manchester Royal Infirmary, to address a letter to several distinguished medical men asking their opinion on the subject. The Medical Board of the Infirmary had previously reported "that it is uncertain whether the pavilion system is so absolutely necessary, as it has been thought to be up to the present time, and it may be well to consider whether some other system requiring less ground may not be adopted." Of eleven gentlemen whose opinion had been asked, four, including Lord Lister, were of opinion that the pavilion was the best, but considered it quite possible to build a satisfactory Hospital on other than this plan. Mr. Holmes made other methods of arrangement more satisfactory, as, for instance, building on the "H" shape, that is, blocks radiating from a central administrative building. Mr

Howard Marsh took the view that the pavilion system was not only not essential, but was in some respects inconvenient and open to positive objection. Two of the questioners were positive that the pavilion system was essentially the best. As a result of these replies the Medical Board concluded that a Hospital suitable in every way could be built on a plan other than the pavilion. The Chairman of the Medical Board made report as follows: "Our report is really a most important one; I know of none of equal importance. Not only has no consensus of professional opinion been before obtained, but no such enquiry as we have made had ever been carried out. Hitherto it has been thought that medical opinion was wholly in favour of a pavilion plan exclusively. We have found that this is a complete mistake. The consequence of this is that in future Hospital authorities will be less fettered and will give effect to their wishes at lessened cost."

While it may yet be best, where ample space and plenty of money is available, to adhere to the pavilion system, yet there can be no question that the introduction of antiseptic and aseptic surgery and the more scientific treatment of germ-diseases renders it quite possible to obtain very excellent results, even in large single buildings. In such buildings the wards should be large and lofty, the ventilation perfect, the plumbing of the most perfect kind, and the nursing thoroughly efficient. In Canada, where the very wealthy are not exceedingly numerous, and where the calls for philanthropic giving are great, the large single building for towns and cities has been what has been erected. To those who aided in their building and to those who may assist in the building of other Hospitals, the fact that they now have the endorsement of some of the most eminent living physicians must be a source of very great gratification. The fact of this change in medical sentiment is beyond doubt due to the great system of antisepticism inaugurated by Lord Lister, and for which he received, from our late Queen, the highest gift ever bestowed upon a medical man. Without it large Hospitals must have continued to be in the future what they were in the past—most unsatisfactory in their results, more especially on the surgical side.

Correspondence.

Editor CANADA MEDICAL RECORD,

Dear Sir,—By a medical journal now before me I see that the Legislature of Minnesota has actually passed a law making it a crime to smoke cigarettes or to sell or trade in them within the limits of the State. Whether the law will be enforced, or, if enforced, whether it will be successful in stamping out the nuisance of cigarette smoking remains to be seen. But, if it does nothing more than to compel these trespassers upon public rights to practice their vice in secret, it will not have entirely failed in the beneficial object it has in view. The evil is a growing one, and the cigarette habit, like the alcohol habit and the opium habit, seems to dull the finer feelings of its votaries, so that little by little they think more and more of their own craving and less and less of the comfort and health of others, until they become at last "cigarette fiends." I do not yet know of any instance of a cigarette fiend smoking in church, although I have no doubt that their inability to do so prevents many from attending divine service, but I have seen them shutting themselves up in the closets and dressing rooms at private and public functions instead of performing the duties expected of them in the ball-room, or reception hall, while, at important business meetings, even when held in private houses, they seem to lose all regard for the feelings of the majority of those present, and within a few minutes after the meeting begins they have rendered the air of the crowded room utterly unfit for use. They seem to forget that, while they have gone through a gradual process of inurement until they are able to tolerate enormously toxic doses of the poison, the majority of those present who are in a normal condition of health are seriously affected by comparatively small doses of it. Even those nearest and dearest to them in their own home have to suffer in silence. I know of one family, and there must be many others, in which the wife, and especially the little children, suffer from nausea, anorexia, headache, vertigo and palpitation of the heart as long as the father remains at home, but who all enjoy good health during the six months that the father, who is a "buyer," is away in Europe.

Now, Mr. Editor, I am making this appeal to the cigarette fiends, to be more considerate, through the columns of your journal (I have no hopes of inducing them to stop it, as

the disease is a hopelessly incurable one), because many of the worst offenders, I am sorry to say, are medical men, and otherwise most estimable and lovable in every way. It is my duty to attend the meetings above referred to, and if I do not come they at once say, "Why is he not here?" But, although I put on my oldest coat and do all I can to get the smell out of it when I come home, there still remains so much of the horrible cigarette smell that my best Sunday coat, hanging at the other end of the clothes-closet, becomes contaminated with it, and, instead of enjoying the "quiet splendour of the Sabbath morn" during the whole of the service, my feelings and sometimes my stomach is stirred up by the souvenir of my sufferings.

Please do what you can to mitigate the evil and earn the gratitude of many who, like myself, might sign themselves

"A SUFFERER."

Book Reviews.

Physical Diagnosis in Obstetrics. By Edward A. Avers, M.D., Prof. of Obstetrics in the New York Polyclinic; Attending Physician to the Mothers' and Babies' Hospital. Published by E. B. Treat & Co., 241 and 243 West 23rd Street, New York City. Price \$2.00.

This work is an entirely new departure in midwifery, and a student capable of taking and appreciating all the points in the history that is required to be taken in each case could only lack one thing to make him a perfect obstetrician, and that is long experience. Every practitioner should read it, for there are many points which are vitally necessary for the safe conduct of labour emphasized which are only too often lightly passed over in general practice.

It is generally agreed on, by those in a position to be in possession of facts, that more women die in private practice than in a well-conducted maternity, and the reason is not far to seek. In private practice all the history demanded in this work would be difficult often to obtain and would be most irksome to the busy general practitioner, but in this we see a sign of the times that midwifery, although one of the last, is nevertheless developing into a special branch requiring special knowledge. It will not be very long until the public will demand the best and be prepared to pay better for it, the reason probably that midwifery has so long been left to its fate in all kinds of hands.

Every practitioner who does not desire to fall behind in the race should procure a copy and study it conscientiously.

H. L. R.

Obstetrical and Gynæcological Nursing. By E. P. Davis. A.M., M.D., Prof. of Obstetrics in the Jefferson Medical College, Philadelphia, and to the Philadelphia Polyclinic; Obstetrician to the Jefferson and Polyclinic Hospitals; Obstetrician and Gynæcologist to the Philadelphia Hospital. Published by W. B. Saunders & Co., Philadelphia and London, 1901. Canadian agents: J. A. Carveth & Co., Toronto. Price \$1.75.

This is a well-written and practical book for nurses doing obstetrical and gynæcological nursing; indeed, in the writer's opinion, the best, and has been made by him the Standard Text-book in the Women's Hospital, Montreal, for its nurses.

H. L. R.

Transactions of the College of Physicians. Philadelphia, Third Series, Twenty-Second Volume.

The editor of these transactions has sent us a copy of the above volume, which contains the papers read before the College during the year 1900, and the discussion on the same. The whole occupies about 275 pages, and, as can be imagined, is most interesting. It could not be otherwise, for the papers are written by and the discussion carried on by the best men in Philadelphia.

F. W. C.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Anthony Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia, assisted by H. R. M. Landis, M.D., Assistant Physician to the Jefferson Medical College Hospital, Vol. 1, March, 1901. Lea Brothers, Philadelphia and New York, 1901.

This volume was, as usual, out on time, and embraces Surgery of the Head, Neck and Chest, Infectious Diseases, including Acute Rheumatism, Croupous Pneumonia and Influenza, Diseases of Children, Pathology, Laryngology, Rhinology and Otology. Its summary of the various papers, which have of late appeared, enables the reader to keep well abreast of the Medical literature of the day.

F. W. C.

The International Medical Annual—A Year Book of Treatment and Practitioners' Index, 1901, Nineteenth Year. New York, E. B. Treat & Co., 241-243 West 23rd Street, Chicago, 199 Clark Street. Price \$3.00.

A more complete compendium of the past year's work, or a better arranged compendium it would be impossible to find. In the department of Therapeutics there is a special article on Toxins and Antitoxins, the conjoint work of Professor McFarland of Philadelphia, and Dr. William Murrill, and the latter contributes an article on the light treatment. In the Dictionary of new treatment is to be found articles covering the whole range of Medicine and Surgery, contributed by authors whose names will be familiar

to those in the habit of consulting this Annual. Prof. Rula, of the University of Perugia, Italy, contributes a valuable article on Tuberculosis. Dr. MacIntyre, of Glasgow, has an article on X-Ray work in Medicine and Surgery, and Dr. Edridge Green one on colour blindness. Mr. Turner, F.R.C.S., writes a valuable paper on Dental and Oral Surgery. Quite a number of illustrations give additional value to the work.

F. W. C.

Diseases of the Nose and Throat.—By Cornelius G. Coakley, A.M., M.D., Clinical Prof. of Laryngology, in the University and Bellevue Hospital Medical College, New York City, etc. Second Edition, revised and enlarged. New York and Philadelphia; Lea Bros. & Co. Price \$2.75 cloth.

The author in the Preface to the second edition returns thanks to many friends who have testified to the practical value of his publication. He states that the new edition has been carefully revised and corrections, with such additions as were deemed advisable, have been made. A new chapter also on Throat diseases arising from infectious maladies has been added. The colored plates have been increased by two, while eleven additional illustrations have been inserted. These plates are quite equal to the excellence of those contained in the first edition, so that the good character of the volume is maintained. As a book, covering the essentials of disease in the Throat and Nose in a succinct and compact style, this volume is to be commended.

G. T. R.

A Text-Book of Gynecology.—Edited by Charles A. Reed, A.M., M.D., President of the American Medical Association 1900-1901; Gynecologist and Clinical Lecturer on Surgical Diseases of Women at the Cincinnati Hospital; Fellow of the American Association of Obstetricians and Gynecologists; Fellow of the British Gynecological Society, Corresponding Member of the National Academy of Medicine of Peru, etc. Illustrated by R. J. Hopkins, New York; D. Appleton & Company, 1901.

This work is a Text-Book intended to serve as a working manual for practitioners and students, embracing the best approved developments of gynecology, including those of later date than are or can be included in a work of similar magnitude by a single author. The various topics have been assigned to a considerable number of writers, but only to those who have acquired a reputation in connection with the subjects upon which they were asked to write. The result has been a careful preparation of copy in the shortest possible time and the issuance of a strictly up-to-date volume. Some of the chapters have been contributed by several writers; thus, a pathologist, a neurologist, a dermatologist and a bacteriologist have each treated their part of a single subject, but the Editor has made the whole consecutive, systematic and homogeneous. The illustrations are deserving of special mention, being very numerous, many of them quite new and all accompanied by a few lines or words from the text which at once explains them, so that one

might get a very fair idea of the subject by carefully studying the illustrations and their titles. As the book has been published by the Appletons it goes without saying that the paper, printing and binding are of the very best. Dr. Reed's bright and entertaining pen is evident all through the book, although he has been ably assisted by such men as Carstens, Robb, Hare, Coe, Dercum, Hertzogg, Mann, Zinke, McMurtry and Harris, of the United States; Ballantyne, of Edinburgh; Cameron, of Glasgow; Johnson, of Montreal; Ross, of Toronto; Sinclair, of Manchester; and Mayo Robson, of Leeds.

The book is so well written and deals so fairly with such a variety of subjects that it is difficult to find anything to criticize. It does not pretend to be a book like Kelly's, which is suited especially for the operator and teacher, while Reed's book will be welcomed by the practitioner and student who by turning to the well-prepared index will find not only the information he desires, but also the author by whom it was written.

Taken all together, one could hardly recommend a more practical or more useful book for students and practitioners who wish to bring their knowledge of gynecology and abdominal surgery right up to date.

A. L. S.—

Principles of Surgery.—By N. Senn, M.D., Ph.D., LL.D., Professor of Surgery in Rush Medical College in Affiliation with the University of Chicago; Professorial Lecturer on Military Surgery in the University of Chicago; Attending Surgeon to the Presbyterian Hospital; Surgeon-in-Chief to St. Joseph's Hospital; Surgeon-General of Illinois; Late Lieutenant-Colonel of United States Volunteers and Chief of the Operating Staff with the Army in the field during the Spanish-American War. Third edition. Thoroughly revised with 230 wood engravings, half-tones and colored illustrations. Royal octavo. Pages, xiv—700. Extra cloth, \$4.50, net; sheep or half russia, \$5.50, net delivered. Philadelphia: F. A. Davis Company, publishers, 1914-16 Cherry street.

This unique work has been thoroughly revised and modernized by the addition of many new and original illustrations and of two new chapters, one on "Degeneration" and the other on "Blastomycetic Dermatitis." The value of the work has been markedly increased by these additions and the high standing of the work enhanced.

The first two chapters deal with regeneration as a physiological process and the variations in the vegetative capacity of the various tissues. The third chapter deals with degeneration under the heads of atrophy, cloudy swelling, fatty, mucoid, colloid, waxy and amyloid degeneration. In his definition of inflammation, which appears in the following chapter, he says: "the term *inflammation* in the future should be limited to the series of histological changes which ensue in the living body from the presence and action of specific micro-organisms, while the word *regeneration* should be used to designate the histological changes which take place in tissues which have been primarily in an aseptic condition

or have been rendered so after the inflammation has subsided." This definition is certainly more accurate and practical, according to knowledge of to-day, than the classical definitions of Sanderson and J. Bland Sutton, which were written before bacteriology had shed its light upon the subject. The following chapters on bacteria and the consideration of surgical conditions where they play so important a part are very fully illustrated and present many practical axioms. For the intelligent application of treatment, a thorough understanding of the causes and conditions of any given lesion is most necessary, and it would be difficult to prepare a work more calculated to fill this want than the work under consideration. To the student, practitioner and clinical teacher it is alike invaluable.

G. F.—

International Clinics.—A quarterly of clinical lectures and especially prepared articles on subjects from all the departments of Medicine and Surgery, by leading members of the medical profession throughout the world, edited by Henry W. Cattell, A.M., M.D., Philadelphia, U. S. A., Director of the Ayer Clinical Laboratory of the Penn. Hospital; with the collaboration of John Athurst, jun., M.D., LL.D., and Charles H. Reed, M.D., of Philadelphia; James T. Whittaker, M.D., LL.D., of Cincinnati; with regular correspondents in Montreal, London, Paris, Leipsic and Vienna. Vols. I. to IV. Tenth series, 1900. J. B. Lippincott & Co., Philadelphia, 1900.

These four volumes represent most of the progress of Medicine and Surgery during the year 1900 in the various clinical lectures and articles. They form a useful and comprehensive collection of monographs by leading authorities in medicine, surgery, therapeutics, neurology, obstetrics and gynecology, pathology, eye, ear, nose and throat, laboratory methods, etc. In the first quarterly volume there is a series of articles on "Disease in the Philippines and Camp Sanitation"; instructive lectures are those on "The Treatment of Carbuncle," by Paul Regnier, M.D.; "A New Era in Electro-therapeutics," by J. McFadden Gaston, A.B., M.D.; "Gastric Ulcer and Its Treatment," by Joseph M. Patton, M.D.; "The Necessity for Isolation and Hospital Care for Poor Consumptives," by J. C. Wilson, M.D.; "The Treatment of Hydrated Cysts of the Liver," by G. Dieulafoy, M.D.; "Obstetrical Prophylaxis in Gynecology," by James Clifton Edgar, M.D.; "The Granules Precipitated in the Blood by Chloride of Ammonium (Process of Mr. Barker Smith) and What We May Learn from Them," by Alexander Haig, M.A., M.D. (Oxon.), F.R.C.P.; "Operation on the Mastoid Antrum," by F. C. Hotz, M.D. At the end of the volume a review is given of the progress of Medicine during the previous year, occupying about one-third of the volume, and referring, not only to the main divisions of Medicine, but to the various specialties, new instruments, honors to medical men, etc.

Volume II. contains thirty-five lectures, many of them of extreme interest. The Kromskop, an instrument for viewing a stereoscopic picture reproduced in colors, is described in the first article. Of special interest are the articles on "The Treatment of Hæmatemesis," by Savage; "Diagnostic Use of the Stomach Tube,"

by A. L. Benedict, A.M., M.D.; "Treatment of the Night Sweats of Phthisis by the Administration of Sodium Tellurite," by Ernest Barrie, M.D.; "The Inadequacy of the Physical Signs as Indicating the Gravity of Pneumonia," by A. H. Smith, M.D.; "Atypical Typhoid Fever," by J. C. Wilson, M.D.; "The Modern Operations for the Radical Cure of Inguinal Hernia," by Edmund Andrews, M.D., LL.D.

In Volume III. there is a symposium on "Genito-Urinary Diseases," consisting of seven lectures by different teachers. Fr. Rubens:ein has a lecture on "A Contribution to the Pathology and Treatment of Epilepsy"; Willy Meyer, M.D., one on "Gastrostomy by Kader's Method Cholecystectomy"; Chauncy D. Palmer, M.D., one on "Reciprocal Relations of Gynecological and Neurological Diseases"; Thompson S. Westcott, M.D., a monograph on "The Scientific Modification of Milk."

Volume IV. has also a continued symposium on "Genito-Urinary Diseases," and several important contributions, notably, "Mosquitoes and the Prophylaxis of Malaria," by Prof. B. Grassi; "Recent Advances in Diagnosis," by James J. Walsh, Ph.D., M.D.; "The Rôle of the Blastomycetes, or Ferments in the Etiology of Cancer," by Prof. Demetrius Roncadi.

Many of the articles are illustrated with coloured plates, woodcuts, etc. In the perusal of these lectures one gets the subjects treated of, containing the most recent advances, and given in an attractive style. Only writers of known ability are asked to contribute; hence one expects to and does get in the four quarterly volumes a comprehensive review of the latest phases of medical progress.

J. B. McC.

PUBLISHERS DEPARTMENT.

LITERARY NOTE.

American readers will be glad to know that the important *Quarterly Review* article on "The Character of the Queen" will be reprinted entire in *THE LIVING AGE* for May 25 and June 1. No article regarding the Queen has made such a stir in England as this, and no other is written from so close and intimate knowledge. The London correspondent of *The New York Tribune* cables that there is almost as much speculation as to its author as there has been regarding "An Englishwoman's Love Letters." The two numbers of *THE LIVING AGE* containing the article will be mailed postpaid for twenty-five cents.

THE "PAPYROS EBERS."

Believing that physicians, of all men, are most interested in the history of their art, the makers of Hemaboloids are now prepared to present to their friends in the medical profession a fac-simile reproduction of the beginning of the earliest medical treatise extant, together with transcription into hieroglyphics and translation of a portion of the text.

The famous "Papyrus Ebers," which was written during the reign of the Egyptian king Bicheres, 3,500 years ago, was discovered by the celebrated archeologist, Georg Ebers in 1872, when an Arab brought him a metallic case containing a papyrus roll enveloped in mummy cloths, which he claimed had been discovered between the bones of a mummy in a tomb of the Theban Necropolis. A complete description of the papyrus and its history is included in the reproduction, and is certainly extremely interesting to physicians and antiquarians generally. A copy will be forwarded by The Palisade Manufacturing Co., Yonkers, N. Y., to any physician who may have failed to receive one.

CANADA MEDICAL RECORD

MAY, 1901

Original Communications.

ODDS AND ENDS IN ORDINARY PRACTICE.

By A. D. STEVENS, M.D., Dunham, Quebec.

INFANTILE ECZEMA—VACCINATION IN.

It is difficult for me to tell you exactly why, but certain forms of skin diseases are not quite to my mind. No doubt the secret is to be sought from within. Either in a naturally defective gift or in the ever-present want of patience that seizes me whenever I undertake some that I could mention. Something may be attributed, also, to the more or less confusing character of the literature I have attempted to unravel. The absence, also, of early requisite clinical training in my own case, or the failure to grasp the whole situation clearly and in detail, may have had its origin in some obscurity in my perceptive faculties so far as relates to discrimination or diagnosis. At all events, I am not ashamed to admit that I cannot accomplish what I could wish in this specialty, excepting always in those common acute forms that are caused by function and ephemeral disturbance of digestion. Be that all as it may, excluding the latter variety, it is doubtful if any side, part or portion of my cares, not involving life or limb, has proved more embarrassing than that connected with certain chronic diseases of the skin, and, to be definite, chronic eczema is one of the "lions in the way."

The French, if I am not mistaken, call the affection under consideration *Riffe*, whatever that may signify. The hideous disfigurement, the itching and smarting, the serous and offensive purulent discharges that it induces are not by any means the innocent little things they appear to be, not only from the standpoint of the child, but from that of all concerned. They are practically disproportionate to the gravity or danger to life near or remote.

If I am a trustworthy index and the peace of mind of the all-round, frequently isolated and plodding man whose lot is cast in some country locality are to be reckoned with, it is safe to suggest that as many rays of light, clinically speaking, as time and circumstance will admit, should be thrown around chronic skin diseases, and, for aught I know, the importance of it has been well recognized and acted upon long ago. This is a proposition that might be extended (though not necessary to make) so as to bear a more general application, for, although the young man who is comparatively isolated, *may* and *will* thereby develop self-reliance and resource, the better he is started in life, practically in all the departments of medicine, the less *moving* he will do afterwards.

I hope I shall not be deemed rash and impertinent if I venture to express the opinion that success in ordinary diseases, such as those of the skin, will give a man as much of a rise or lift as a familiarity with the latest literature upon myxœdema or Friedrich's ataxia and things of that sort will do. It is a weakness of mine, I know, but I seldom think of dangers I may never meet. I confess I am slow to learn and act, but you must forgive me if, in these days of specialists, I try not to lose sight of the substance and grasp after the shadow. All this, however, is a gratuitous departure from the theme I had in mind at first, and will, let me assume, be readily excused. And, for that matter, it is only the right thing to state that every one is at liberty to dilute water or discount my conclusions to suit themselves.

I have lately prescribed several times for a child a year or two old, whose face is literally one continuous scab or

crust, and the itching, the burning and smarting well nigh demoralizing. The outcome of my services thus far has scarcely been worth the mentioning, or, at any rate, they have not touched bottom, and are not likely to do so. Some of the large-hearted mothers of the neighborhood are just now trying their hand at it, and, as the child inherits a fine constitution, they are certain to have all the time they require. I have in mind, however, three others of the same description, the conclusions of which appeal more to our instinct of pride, and, on the whole, are better worth recording. The first of the three little fellows successfully treated for the same condition, the mother, for some reason or other, wished me to vaccinate, a thing I did not like to do, and gave her my reasons. She proved equal to the emergency in the meantime, and proposed to assume personally whatever responsibility might attach itself to the case. I gave the boy the benefit of the simple operation, and it *worked* well and no mistake. Not many days after the child's face began to clear up, and shortly became as fresh and clean as one could desire. The vaccination had done the business thoroughly. The child was cured then and there, and has remained so ever since. The very satisfactory termination of that case served to stamp the course of treatment with a feeling of respect, if not approval. In fact, it furnished us with such an amount of faith, so much courage and confidence that we repeated it for the benefit of the other two similarly afflicted children, and with just as happy conclusions. That is to say, in short, the two were effectually cured by me through vaccination.

Both belonged to the same family and exhibited an equally perfect type of the class. The two cases had been likewise chronic for some time, and all the means used in the miserable affair, up to the date of vaccination, had not rewarded us in any degree compatible with the efforts brought to bear upon them. The parents, too, in these last instances cheerfully declared their willingness to take the chances of vaccination, and the results have shown how wise they were. It would be a difficult matter to-day to find a vestige or trace of the old condition anywhere on them.

In order now to complete the story, let me return to the little sufferer who is, presumably at this time, fighting against the wretched disease. Two or even three swallows do not, I know, make a summer, but, strengthened by our former good fortune, I spoke to the parents about vaccination and referred them to the three previous successes through it, but they as often declined my advances. If I were morally certain of any support, authority or precedent for this method of treatment beyond my own, which, I hope, I have sufficient modesty not to claim is a wholly warrantable basis to *urge* it upon them, or, if the child were mine, I would certainly not flinch from incurring the risks and vaccinate him in the firm conviction that all would, in due time, be well—that, in other words, the formidable looking eczematous face and head would very soon after disappear for good and all.

VALEDICTORY ADDRESS

TO THE GRADUATING CLASS AT THE ANNUAL CONVOCATION OF THE
MEDICAL FACULTY OF THE UNIVERSITY OF BISHOP'S COLLEGE,
APRIL 16, 1901.

By JAMES V. ANGLIN, B.A., M.D.,

Professor of Mental Diseases, Assistant Superintendent Protestant Hospital
for the Insane, Verdun.

Upon my shoulders rests the honour of bidding formal farewell to the medical graduates of 1901.

While profoundly grateful for the distinction thus bestowed on me by my associates, I have undertaken to be their valedictorian with reluctance through fear of falling short of what is expected of the incumbent. Nor would it have been accepted at all had I felt disposed to break a rule of our profession by flinching from a duty of mingled pain and pleasure.

Let me, therefore, trust that you will interpret kindly the few observations I now venture to present.

Gentlemen of the graduating class, what am I to say to you beyond the customary good-by ! For as farewell between lovers consists not alone in the ejaculation of *vale, vale*, so I would fain add more.

The temptation to wander far afield is all but irresistible, for the position of the spokesman of the Faculty to-day is unique. Yours is the first class to leave our halls in this potentially wonderful century. Yours is the first class to graduate since the premier

gentleman of the British Empire ascended its throne. Yours is the first class to go hence after three decades in the growth of this college. Hence, if it were practicable within the limits of my address, it would be fitting to revive the memories and review for your imitation the lives of that long procession of our revered predecessors who adorned the century which has gone and lived to add honour and dignity to its work. It would be profitable to summarize the incomparable progress in the healing art during the era of our late lamented sovereign, who, despite "the fierce light that beats upon a throne," must ever be enshrined in memory as "Victoria the good." Nor would it be inopportune at this peculiar time to recount the annals of your Alma Mater, and tell of the deeds of the children born of her during the past thirty years, who are with us to-day in spirit if not in person.

Favoured as we are to behold the dawn of a new century, of a king's reign and of a fourth decade, alluring and inspiring as is the theme, I shall leave it to those riper in years and professional experience to indulge in such a retrospect. I will leave it to them to rehearse the stupendous achievements of the nineteenth century, and tell of its innumerable discoveries whose consequences are of such moment in the alleviation of human suffering.

I pass over the revolution begun by Pinel and Tuke, on which I might be pardoned for lingering, whereby the insane are now regarded as patients instead of persons possessed, with hospitals to shelter them in lieu of reeking dungeons, their keepers replaced by nurses, science assuming control of the mind dethroned, aided by Christian benevolence and pity.

I forego sketching the reform brought about in one generation in the nursing of the sick, both of mind and body, the greatest marvel being that the world waited so long for Florence Nightingale to show the need of such a blessing. Nor shall I dwell on the astonishing advances in methods, the introduction of instruments and remedies undreamt of 100 years ago, the delineation of which would sound like some fairy tale.

I will leave it to the silver-haired fathers to tell of the heroes we worship who lent lustre to the reign of our late Queen. Many of whom, who like her were faithful to the end, now rest. Ours is the loss if we do not cherish the memories of such men, who oft midst trial and hardship kept our profession in the van of the progress that marked the Victorian era. Our highest inspiration is to be found in "the touch divine of noble natures gone."

I will leave our worthy Dean to narrate the infant struggles of this institution in whose stalwart maturity we all rejoice. Perhaps I may be suffered to tarry a moment to laud its breadth of view and cosmopolitan character. Not only does Bishop's welcome students from all climes, but its teaching staff hail from at least five universities. Though fostered by the church of England, all creeds seek its lecture-rooms, and it may point with pride to its having in succession as professorial valedictorians an Anglican, a Presbyterian and a Methodist.

My parting words to you, then, will bear not on the glorious past, but on your hopeful future.

In preparing for this hour I have scanned many elaborate addresses of bygone years, and find that most of my predecessors were constrained to give similar admonitions to the departing classes, the variation being in their colour rather than in the material. I shall not attempt to alter the precedent of the old century, but will begin the new by giving the kaleidoscope another turn, presenting to your view the same old crystals in such different combinations as I am capable of resolving them into, hoping with Horace that as *haec placuit semel, haec decies repetita placebit*.

As your teachers we congratulate you on the consummation of years of toil, and rejoice as you don the long-coveted hood. But our happiness is not unmixed. Shadow alternates with sunshine, and even on this bright day the cloud comes. We have met to part. To-day you begin the journey of life, leaving forever the home where you have been nurtured and trained. Behind you remains for our warm remembrance a record of faithfulness such as few or none others have left. We are proud of our youngest offspring. Before you a career of grand possibilities opens up, like "a breeze 'mid blossoms straying, where hope clings feeding like a bee." We wish you God-speed.

As you stand on the threshold of the old homestead, all ready to set forth, diploma in hand as a passport through the world, your grip bursting with knowledge, your Alma Mater would fain linger by your side until the last possible moment, repeating into your restless ears ere you tear yourselves away disconnected fragments of the counsel she has oft before striven to inculcate whilst you sojourned happily beneath her roof. She may forget in her grief to mention most important things, but her silence and the gentle pressure of the hand are more eloquent than any words that may come now from her full heart. She longs for the success of her boys, and for this will hope and pray as with misty eyes she watches your retreating steps and when they are lost to her gaze and vanish in the busy haunts of men. Her heart yearns above all to have you prove true physicians, worthy of her, worthy of the traditions of medicine.

To do this you must realize the nobility of your calling and the dignity of the title this day conferred, and comport yourselves in accordance therewith. This may not be easy after the careless abandonment of undergraduate life, just as at the new year time we are slow to grasp that the old has passed. But upon you will soon devolve the responsibility of maintaining that honorable position in the sight of all men of incontestable eminence which your forerunners have struggled to win for the vocation of their choice.

For the profession of medicine is not of this nor of the preceding century, but, taking its origin in the shadowy outlines of Egyptian art, it has developed during the ages past, accumulating the products of many minds, gathering refinement and renown on its way, so that it presents to us to-day a history and a name of which its members may be justly proud. Men of every continent,

men of every tongue, the wisest and the best, have toiled with single-eyed devotion to lay broad and deep its foundations and to rear a stately superstructure thereon

Gentlemen, although it may be your lot to lead unostentatious lives in the quiet performance of professional duties, daily ministering kindness to the helpless, and may leave for posterity meagre testimonials of your work beyond a memory embalmed in grateful hearts, your every service will lend beauty to the glorious edifice which our profession is erecting. "No good deed has yet been lost." With the enchantment that distance lends, behold the construction of the magnificent temple within the Holy City. The foundations are laid, and its vast proportions arise before our wondering view, and yet silence is all around, for we are told that "the house, when it was in building, was built of stone made ready before it was brought thither; so that there was neither hammer, nor axe, nor any tool of iron heard in the house while it was in building." But, listen, from the outlying quarries is heard the chisel of the workman transferring the designs of the architect to marble; from the mountains robed in azure comes the sound of the axe which levels to the ground the proud cedars of Lebanon. And now the temple is complete, the architect gazes with admiration on the production of his genius; the stone-cutter marvels at the form of beauty which he has fashioned from the crude blocks; the workman in brass and gold are proud of their superior skill; and yet the work of any or all of these is no more useful, no more essential, than that of the lonely wood-cutter on the far-off hills of Lebanon.

Remember, gentlemen, that yours is a profession, not a trade; the difference being that in a trade the relation between the seller and buyer is commercial; in a profession the connection between the giver and receiver is personal. In a trade money is the aim avowed; in the profession money is only a condition. Moreover, in a trade one can perfect his skill once for all, but in a profession you continue acquiring new facts and new methods, of which more anon. Henceforth you profess special knowledge and apply it to the use of others for their benefit, not your own. The aims of your calling are the loftiest—the preservation of health, the relief of pain, the removal of deformity, the cure of disease, the lengthening of life, robbing the inevitable of its terrors.

I am not unmindful that money is a necessity to your existence, that the more of this world's goods you have the more good you can do, that giving your services for nothing is often an evil, as is amply proved in the hospitals of this very city, but you must allay the suffering of humanity, not for monetary considerations, but because you are called to imitate the Great Physician, who went about doing good. Your usefulness in the world can never be repaid in earthly coin, so, while it will owe you a living, you must work for a higher honorarium, a consciousness of having done your duty.

I, indeed, counsel that you will gain respect and practice by starting right in with fair fees, no undercutting, and collecting

your bills in a business-like way, but never bemean your vocation by refusing a call to the humblest hovel. If there be a selfish one hearing me, let him remember that the least promising persons are often the best pay and hold up for his encouragement the recent case of a western doctor who was left a fortune for attending an afflicted widow without expectation of recompense.

Further, you are now members of the regular medical profession. That word regular separates you from the amateur, the volunteer, the visionary and the experimenter. It means that you make medicine a life study, and bring the best powers of the mind to master it; that having searched the literature of the past, and examined the labours of your predecessors, you accept no dogma such as *similia similibus*, nor *contraria contrariis curantur*. You are neither allopaths nor homœopaths, nor antipaths, but scientific, medical men. In every calling in life it is those who consecrate their lives to their work who gain the confidence of the community in which they live. Such are the regulars to whom, in a great crisis, the people look for help, though when the trouble is trivial the volunteer and the irregular may have a following.

How anxiously did the families besieged in Lucknow long to be rescued, and, when the pibroch of the Highlanders was heard, how welcome was the sound of that slogan. The prisoners took fresh courage; they knew the British regulars were marching to their relief.

Because the laity waste time and money on quackery some fear there is not confidence in scientific medicine. But, gentlemen, the reverse is the case. Deep down in the hearts of the people there is a growing faith in the ability of the regular doctor to combat disease more successfully than anyone else. For slight ailments they may trust to the amateur; from imaginary ones the impostor reaps his richest profits; but when death stares them in the face you will be summoned to avert disaster. Fret not yourselves because of evil-doers. Quackery has always had its votaries, and will likely linger till the millenium's dawn, yet it does not endanger us as of old. It flaunts the more openly in our day, because the advance of science is ousting it, rendering the secrecy of nostrums an impossibility. Many modern quack remedies are, therefore, harmless and useful for some things, but betray the cloven hoof in being advocated as cure-alls. Invitations to take a pill beset us on every rock and barn from ocean to ocean, but our grandfathers had a larger supply of quack remedies, and with more alluring, alliterative titles. What fascination is there in certain little liver pills compared with Lucas' pure drops of life. Even in the legitimate (sic) practice of early times quackery was rampant, for the scientific habit of accurate observation was then unborn, and culture meant philosophic speculation. Knowledge being meagre a pretence was made to all knowledge. The human race comes naturally by its aptitude to fall an easy prey to quackery, and, indeed, has grown to like being humbugged. The seed has multiplied since Mother Eve swallowed the nostrum of the smooth-

tongued prince of impostors. So, if any preparation is put in the shops to-day, offering a knowledge of things forbidden, or anything unattainable, if it is skilfully advertised, the wily company amasses a fortune. The remedy may fail, never the company.

It is for you, the guardians of health, to assure your clients that there are no secrets among the members of our profession, and that there is no royal road to the ruddy heights of health. The path is not paved with broken bottles of Warner's Safe Cure, the fences are not built of boxes of Beecham's pills, the way-sides are not planted with potatoes to be carried in the pocket for rheumatism. If you would lend dignity to the profession you must be careful to avoid quackery in any guise or disguise, for it can still present itself as of old in Eden, with all the subtlety of the serpent, in such specious ways that we may be caught unawares. Since patent medicines for the public have been unmasked by science the desperate inventors now boldly assail the profession itself, and drugs, which we know well are combined with something cheap and useless, given a quasi scientific name and fancy price, and our desks are burdened with beautiful specimens of the printer's art and literature from the pens of hirelings about the camp. They that are deceived thereby are not wise. Remember, too, that quackery may steal within our ranks in other ways. Any pretender to knowledge and skill is a quack, and boastfulness tends thereto. Those whose names mysteriously but repeatedly appear in the press are on dangerous ground. And in this matter, what is wrong in humbler practitioners is not proper for the heads of the profession. In certain districts remote from Montreal M. D.'s exist, who sometimes tell their patients, when called in, that they are "threatened with" diphtheria, or pneumonia, or typhoid fever, but they will try "to break it up." Then when the sufferers speedily get over their trifling cold or feverishness these physicians take amazing credit to themselves for having prevented dire calamities. Now, as every well instructed medical man like yourselves knows either patients have these diseases, or they have them not, and that if they have them they will run their course in spite of all the doctors on earth. Whoever, therefore, uses such phrases is an artful quack, who ought to be banished from the medical fraternity along with the terms themselves.

We must be candid, however, in using the term, for it is convenient to decry, as quackery, any method of which we are culpably ignorant, or to suspect a successful fellow-practitioner.

Quackery finds a foothold, because there are still diseases that baffle our knowledge. So long as we fail to cure, so long will the charlatan have a *raison d'être*. Therefore, gentlemen, as true physicians, we must assist in removing this reproach to our profession, by adding to the general stock of knowledge from our experience. While we cannot all be Jenners, or Simpsens, or Listers, each member, no matter how humble, can contribute his mite to science. There is a vein of truth in the satire of the shrewd old doctor so cleverly portrayed by John Hare in "A Fool's Paradise,"

when he says : " Knowledge is the monopoly of extremely young practitioners. I have been doctoring for forty years, and now stand here a monument to triumphant ignorance." There are some things we have not taught you in your course. Your exams. are over, and you passed them well, but you will daily learn how much there is yet to acquire. They were not the end or object of your training. The goal is still distant. You have taken only your preliminary canter. Examinations are necessary evils—necessary to guarantee that a man is qualified before let loose on the public ; evils, because they are apt to lead you to engross attention on the curiosities in medicine. For them a mere parrot knowledge may answer, which is of little use in after life. As Gibbon puts it : " every person has two educations, one which he receives from others, and one more important, which he gives himself." Now you are free to attain broader, truer and more permanent knowledge, working for your future good. If you have rightly used the past quadrennium you have found out how and what to learn. For as old Plato long ago observed, the accumulation of facts is not education. Training is the end, not smattering. You have received a better preparation for the pursuit of medicine than was possible a generation ago. Of you, therefore, much will be required.

However long you may live, be students to the end of your days. Success demands persevering toil. Though you have just finished a four years' grind, you must rest yourselves, like the Indian who runs when he tires walking. Though your origin be humble, that is no barrier. History is replete with examples of immortal names from lowly beginnings. Though circumstances compel you to seek a rural vineyard, triumphs come from country practice.

In all your methods be thorough. Let not what Dan O'Connel said of a celebrated lord apply to you : " He knows something about everything, but everything about nothing." No slipshod, haphazard plan brings success. The one thing in medicine that is brilliant is accuracy. There is nothing too trifling to be taken note of.

But, while urging study upon you, become not estranged from your life work. We are all so keen on scientific problems nowadays that we are apt to forget that in the eyes of our patients our value mainly depends on the amount of relief we are able to bring them. What they expect from us is not a learned discourse on their disorder, but simply something that will do them good. If we show but little interest in a case between an elaborate diagnosis and the autopsy, people will flee from us to the quack for refuge. Laboratory and bedside work may go hand in hand, but our duty is to spare no pains in combating disease, for we shall ultimately be judged not by our contributions to scientific journals, but by the measure of success we have attained in discharging the task society has committed to us, namely, the relief of suffering and the preservation of health. Your book-learning must be supplemented by

practical knowledge, for if there be one man more than another who should be of the world rather than of the closet, it is the physician. There is no information you can secure which may not at some time prove valuable in your versatile profession. Your patients themselves must be your chief study, not only their physical symptoms, but whatever betrays their mental characteristics. It is a mistake to leave this entirely to the alienist. No one can understand his patient better than the old fashioned family doctor. Mind and body are so closely interlaced that it is just as necessary for the successful conduct of a case that you know how to handle your patients's thoughts and feelings as it is that you know how and when to give medicine ; indeed, you may thus oftentimes be able to dispense with drugs. Herein excel the empiric, the Christian scientist, and all of that ilk, whose shrewd observations, astounding simple-minded folk bring them amazing credit and pelf. We may learn from them, finding good in everything. While medicine should have your best service and loyal devotion, do not fail to add to your professional equipment the broadest culture within your reach. Devote a portion of your leisure to the pursuit of general literature, art and other branches of knowledge than your own. Such attainments will bring practice to your door apart from their intrinsic pleasure. They will aid in establishing that intimacy with your patients so necessary that you may use your special knowledge for their relief.

Make it a rule also to take a yearly vacation, and seek the quiet and peace of the hill-tops, the woods and the seashore, where nature is waiting to teach new lessons. Some brief respite from unremitting duties is essential for your mental and bodily welfare. Self-interest demands that you take care of yourselves as well as your patients. The only success worth the name is when a man gets what he desires, be it fame or power or wealth, without paying too dearly for it. If the gain be at the price of physical, intellectual or moral health, he gives, like the ignorant native, pearls for a bauble.

And now as your Alma Mater wrings your hand in parting, for she must not keep you longer, though she would, her exhortations, mother like, become even more personal.

No matter to what pinnacle of success you rise, be modest. The full head of wheat bends low. When Paré, chief in the domain of surgery in the sixteenth century, wrote that "he had left nothing for posterity but the small hope of adding some few things to what he had done," he little thought that he was penning words that would be a warning to us against similar boastful folly. Nevertheless, learn to value your own opinions, and, if inclined to doubt your powers, remember that "our doubts are traitors, and make us lose the good we oft might win by fearing to attempt." It is as injurious to underrate as to overrate oneself. The truly great man is humble, but he knows his business, and knows that he knows it, only he is not vain on that account. It is the men who, like the general paretic, delude themselves that they have what they lack whose self-confidence is morbid.

One maxim of cardinal importance is this, if you would win your patient's confidence, be honest. If his case be puzzling, better be frank and say so, "or give thy thoughts no tongue," rather than attempt to mask ignorance by jargon sounding grand in the ears of the uninitiated. Solemn pretentiousness has had its day and should cease to be. True, it requires moral courage to say "I cannot at present understand this obscure case; let me consider it for a time;" but you will gain rather than lose by such candour. I do not advocate stuffing your patients with medical lore; only what you do tell them about their complaints should be the truth, but as little as possible to avoid miscomprehension, for you cannot make the laity see with your eyes what it has taken us years to acquire. Time was when, although the lawyer was allowed to take his case *en délibéré*, and the clergyman to step from study to pulpit, the full-fledged doctor was supposed to have no need of books. Then he could consult the authors on a perplexing case in secret only, while waiting the salutary effect of a dose of castor oil. People are gaining common sense, and, while they rightly expect you to have many things at your finger ends and reserve forces of knowledge and skill, they appreciate your well-thumbed library.

As a corollary to the above, it follows that, if you are honest, you will create confidence by giving to your patient sympathetic attention, never appearing in a hurry, but by your attitude making him feel that your mind for the time at least is entirely absorbed in the study of his case. If you are straightforward with them the sick will put entire confidence in your skill. They learn that their interest is yours. They will not think you call too often nor dispute your bills. Unflinching trust in you must ever be your aim. Though a doctor does not believe in the faith cure he does believe that the faith of the patient in him is ever to be fostered, and in the value of hope inspired thereby as a curative agent. In no other class of men is an equal amount of confidence placed. The secrets of the family and the skeleton in the closet are unhesitatingly exposed to our gaze. Our profession stands alone as the repository of the doubts and fears, the woes and hidden ailments of frail humanity. The gay youth reaping the reward of folly fixes his unbounded reliance in us no less readily than the virtuous matron in the hour of her distress, when, were we unfaithful, joyful anticipation might be turned into hopeless gloom. What in this world will compare with the absolute trust reposed in the surgeon as he wields the fearful but merciful knife; when a false move, an error of head or a failure of heart might sever the frail link that binds the soul to the body. Gentlemen, prove yourselves worthy of such implicit trust.

In the homes of his patients, darkened by the shadow of death, the true physician must be not only a minister of hope, but of courage. He is not to shrink nor to shirk, yet at times watchful inaction will demand as great heroism as bold action. Your sympathy will be often appealed to, but be neither a weeping Niobe, nor a piece of steel. Do not carry a long face into the sick room; do not be funereal. "A man may say a wise thing though he says it with a laugh." You may accurately fathom a mysterious

case while talking nonsense to a patient. There is a time to laugh, however, and above all things in your dealings with patients you must use common sense. Don't be above having a few drugs about you, when now you may put all you need for any case in your pockets without inconvenience. Your fathers were never without their cumbersome saddle-bags, and the old methods are not all bad. A prescription pad and lead pencil are little use in an emergency. Do not make your patient worse by staying too long ; do not make him think he is not getting his money's worth by staying too short a time. Do not gossip, do not tattle, do not talk about yourself, much less your other patients. Do not come to the bedside reeking with tobacco or cologne. Do not fuss, do not parade your own ailments; be a man and a gentleman. From this day, following old country usage, yours by right is the title of gentleman as well as doctor. But do not be content with the name only. The true physician will be gentle in word and deed, the kindest of men, considerate to poor and rich alike, coupling the tenderness of a woman with the courage of a man. He will cultivate an ease and grace of manner, the key to public favor, without which scholarly attainments fail.

Towards his associates in the profession he will be courteous in demeanour and brotherly, no matter what provocation may arise in the break-neck struggle for wealth, place or power, throwing the same mantle of charitable consideration over the short-comings of others with which we are so prone to envelope our own mistakes. You will rarely find men designedly doing you harm, for "evil is wrought by want of thought as well as want of heart." After all this world is what we make it.

"Who seeks a friend should come disposed
 "To exhibit in full bloom disclosed
 "The graces and the beauties
 "That form the character he seeks
 "For 'tis a union that bespeaks
 "Reciprocated duties."

In these rambling utterances I have not complied with convention by quoting Hippocrates to you, but let one who has already travelled some distance along the road on which you are now starting repeat for your daily guidance the words of a greater than he, of the "best of men that e'er wore earth about him, the first true gentleman that ever breathed." Branded they have doubtless been on the tablets of memory since you learned to lisp them at a mother's knee, but if you would attain your heart's desire, and serve your generation well, fashion your conduct in accordance with the one sentence that includes all that has or can be said to you. "Whatsoever ye would that men should do to you, do ye even so to them."

A reluctant farewell we bid you. Heart within and God overhead, press forward in the profession for which in our halls you have been prepared, keeping ever aglow the flame of its glory, loyally loving your Alma Mater as a Roman the city of the seven hills, till dust to dust conclude your work, and you pass where farewells are never known.

Selected Articles.

A CONTRIBUTION TO THE MODERN TREATMENT OF PILES.

By DR. JEDLIČKA, Prague, Hungary.

The most important factor in hemorrhoidal disease of almost all kinds is disturbance in the normal formation of the fecal masses and of the regular soft evacuations, no matter whether the underlying cause is dependent upon some derangement of the intestinal functions themselves or whether the affection is secondary to or accompanies troubles in other organs. Remembrance of this well-known and yet insufficiently appreciated fact is requisite to understand what follows here, and to enable the sufferers from these rectal affections to obtain the full benefit of the remedial measures advocated.

Prevention of the appearance of hemorrhoidal tumors, or their retrogression and cure when already present, requires as its essential condition the regulation of defecation; in fact, the entire question of the treatment of hemorrhoids can be summed up in one sentence: "*Procuring regular passages from the bowels.*"

From one point of view physicians do indeed appreciate this fact in their treatment of piles. We do seek to stimulate the sluggish functions of the intestines, the most frequent cause of fecal accumulation, by means of suitable muscular exercise, stimulating cold douches, massage, proper diet, and finally by the use of purgatives. When these measures are conscientiously and persistently followed out we get fair results in a number of cases; unfortunately, they are most often neglected.

Nevertheless, these methods of treatment are never thoroughly satisfactory, either to the physician or his patient. The sufferer from hemorrhoids is always a troublesome patient for his attendant; the latter can finally find no new remedy for the sufferer's ever-recurring troubles and complaints, and in the end the dreaded knife of the surgeon, or even the deceptive aid of narcotics is invoked.

Thus we are forced to realize the fact that in spite of most careful carrying out of appropriate general measures—gymnastics, diet, regular attempts at defecation, etc., in most cases the tendency to the accumulation of fecal masses in the lower large intestine remains. These more or less compact

masses cause renewed venous stasis, hyperemia, irritation, inflammation and superficial traumata of the rectal mucosa. And since we know that this membrane is always especially delicate, sensitive to all possible influences, prone to take on inflammatory action—in one word diseased, in patients suffering from the hemorrhoidal tendency—is it any wonder that the above methods of treatment are successful only in a small minority of cases? In point of fact it is these very venous hemorrhoidal tumors themselves which, together with the swellings of the mucosa, form a mechanical obstruction to defecation, or are so extremely sensitive to the pain caused by the passage of the hardened masses that they occasion reflex spasmodic closure of the anus. This is especially frequent in the worst cases; and it is indubitable and plainly evident that general treatment cannot possibly give us permanent results. The only measures from which relief can be hoped for must be sought in *local treatment of the hemorrhoids themselves*. The diseased portions of the rectum must be themselves attacked. Local treatment is even more necessary in the severe cases that last for months and years and drive the patient to despair with the pain that they occasion than in the milder and less chronic ones.

Our first object must necessarily be to *soften the fecal masses inside the rectal canal*; to make them mushy, so that they may pass the swollen and tender mucosa without causing pain or irritation. This is the necessary condition and indispensable prerequisite for all further curative measures. The feces must be prevented from accumulating and hardening in the intestine, and thus exercising further compression upon the veins; and they must be removed without renewed “insult” to the irritated lining membrane of the rectal sack. If that can be effected the painful swellings of dilated veins can subside without any other remedial measures.

Our second object is to treat the inflamed and secreting mucosa with mild astringent and disinfectant remedies, more especially with such as have desiccating and healing effects. Thus we reduce the blood supply to its normal amount, cause the inflammation to subside, and the denuded areas to heal up. So far as a *restitutio ad integrum* can be effected at all it must be done in this way.

For several years past we have been fortunate enough to possess a remedy which fills all the indications above laid down as necessary for the permanent cure of hemorrhoids. It was discovered in Germany, and after extended and very satisfactory experimentation with it in actual practice it was

called "*Anusol*" on account of its brilliant curative action in diseased conditions of the anus. In a comparatively short time it has received the highest recognition and testimonies of value in medical circles of both the Old and the New World.

The chemical name of the substance is the iodo-resorcin-sulfonate of bismuth, it being a combination of bismuth with iodized resorcin-sulfonic acid. In common with several others of the newer dressing powders, the action of this new bismuth combination is that of an excellent disinfectant, desiccating secreting and suppurating surfaces, and exercising a marked granulation and cicatrization stimulating effect upon wounds.

More valuable, however, than these varied properties is one possessed by no other medicinal preparation, which renders the use of *anusol* indispensable as a basis for the permanent cure of the hemorrhoidal disease. This is its faculty, when introduced in appropriate form into the rectum, to so soften the more or less hardened feces there present that they do not simply crumble and pass out as smaller hard masses, but form an even, semi-fluid, gruel-like mass. This can be passed even in the most sensitive hemorrhoidal condition without any pain, and without in any way irritating the mucous membrane.

Acting thus indirectly as a laxative, and removing the real local *causa morbi*, which is the essential obstacle to the cure of the condition, and thus filling all the indications for successful treatment, we are justified in regarding *anusol* as a *local specific for hemorrhoids*.

Let us compare the usual remedies recommended for hemorrhoids with it for a moment. Simple or medicated soap or glycerine suppositories, in spite of the watery purgation that they occasion, can be left out of question; for they cause violent local reaction and increase the inflammation, whilst the entire absence of healing or sedative effects absolutely contraindicate their employment.

Again, the several tar-like ichthyol and vasogen products, as also the naftalan suppositories and salves that have recently been put on the market, can in no way be relied upon in the treatment of hemorrhoidal diseases. Valuable as these preparations may be in certain internal, and more especially in many cutaneous affections, medical experience is entirely opposed to the application of tar or tar-like substances to inflamed and secreting surfaces. Nor have any of these preparations the faculty of softening the fecal masses

which anusol possesses. This, as we have already noted, is of the greatest importance; the first suppository often giving the patient his first easy, bland stool, relieving the pain from which he may have suffered for years, and procuring refreshing and uninterrupted sleep.

Any unusual susceptibility or idiosyncrasy of the rectal mucosa of a hemorrhoidal patient need not prevent our employing anusol. On the contrary, if a patient complains that he feels increased irritation and darting pains after the introduction of an anusol suppository, one should be introduced twice or three times a day for a week; then a few days should be passed without treatment, and then a single daily suppository will bring the case to a satisfactory conclusion.

The nature and seat of the hemorrhoidal disease is such that it is by no means surprising that a patient who has been cured should have a slight relapse or experience some symptoms of his former disease months or even years later. In such cases the administration of a few suppositories will promptly cause all the symptoms to disappear, thus preventing the development of slight disabilities into more serious difficulties, the chief thing being then to employ the anusol early enough.

It is a further advantage of *anusol* that it is *entirely non-poisonous*, that it has no effect upon the general organism at all, and that *its action is entirely local* and in the directions, above indicated. Hence, it can be administered *at any age, and to both sexes under any condition*. This is of the more importance since from its very varied properties it may be employed in many other diseases in which a smooth, mushy stool is a necessity, but to which enemata with all their inconveniences and contraindications are not applicable.

Anusol has been found a most welcome aid to the gynecologist in treating the tendency to constipation and hemorrhoids so marked during the periods of gravidity and menstruation. In these common conditions both practitioners and patients are getting to like it more and more. It has also been successfully employed in pruritus vaginæ, the suppositories being introduced into the affected canal. They are to be preferred in pediatric practice to the customary soap suppositories, which are painful. They can replace dusting powders and healing salves with these little patients; for, as soon as the wounded skin, either of nursling or adult is rubbed over with a suppository, the hyperemia, inflammation and oozing cease. In oxyuris vermicularis at any age their action is prompt. Anusol has further been found to be an invaluable aid in all cases of *tenesmus, of fecal impaction in*

the rectum, in catarrhal proctitis, fissure of the anus, prostatic hypertrophy, carcinoma of the rectum and intestinal tuberculosis. These are all affections in which a soft and painless evacuation of the bowels gives the patient the greatest possible relief from his sufferings.

Since the iodo-resorcin sulfonate of bismuth is readily decomposable by light and air, but can be kept indefinitely when combined with fats, the manufacturers send it out combined with cocoa-butter, cerate and zinc oxide, thus :—

R Anusoli.....	7.5 (112 grains).
Zinci oxidi pur.....	6.0 (90 grains).
Balsam. Peruv.....	1.5 (22½ grains).
Olei theobrom.....	19.0 (5 drachms).
Cerat. simpl.....	2.5 (40 grains).

Experience has demonstrated that this is the best formula for the suppositories. They are packed twelve in a box. These precautions on the part of the manufacturer are wise and practical; for the druggist is saved the troublesome and disagreeable work of making the cocoa butter suppositories himself, and the physician is spared the necessity of writing out the dosage of the various necessary constituents of the prescription. The latter need only order :

R Suppositoria Hemorrhoidalia Anusoli No. 12.

Sig. One to be introduced into the rectum every evening before retiring (in severe cases one morning and evening); or to be rubbed three times a day over the affected skin.

Besides these practical advantages, placing anusol on the market in the form of suppositories ready for use has the additional object of bringing it to the physician in permanent and thoroughly stable form. With the most ordinary care the enveloping fat of the cocoa-butter will preserve the easily decomposable bismuth compound for years; in fact, indefinitely. Direct moisture, or the influence of a warm, water-saturated atmosphere, sufficient to penetrate the containers and the enveloping tinfoil, will indeed cause a slight separation of iodine, as is shown by a partial yellowish and bluish-black discoloration. This readily happens, as is well known, with all iodine preparations; but it has absolutely no influence upon the efficacy of the suppositories, as numerous experiments purposely made with discolored specimens have abundantly shown.

We can sum up the various facts that we have elucidated above as follows :

1. In the great majority of cases of hemorrhoidal disease the final and immediate cause is to be found in the accumulation and impaction of fecal matter in the lower section of the large intestine.

2. To remedy the hemorrhoidal disease we must remove this morbid factor ; and for this purpose we must employ general treatment, but more especially local measures, to soften the stool and effect an easy and painless defecation.

3. For treatment on these lines, or as a basis for further radical measures, we have in the iodine resorcin-sulfonate of bismuth, or *anuso*, a thoroughly suitable local specific which answers every requirement.

Anuso is obtained only in the form of suppositories in original packages of twelve.—*St. Louis Medical and Surgical Journal*.

ON BELLADONNA IN THE TREATMENT OF BRONCHO-PNEUMONIA IN CHILDREN.

By J. A. COUTTS, M. B. Cantab., F. R. C. P.

I will preface what I have to say by stating that I hold to the prevalent belief that there is an essential difference between croupous pneumonia and broncho-pneumonia in children. Cases, it is true, are not uncommon in which, judging from the physical signs alone, there may be extreme difficulty at the outset in determining to which class, croupous or catarrhal, they rightly belong. This difficulty doubtless arises from the fact that a well-defined patch of croupous pneumonia in young children is apt to be accompanied by small patches of collapse, and subsequent consolidation, in the immediately surrounding pulmonary tissues. Here the signs of broncho-pneumonia may complicate, or follow upon, those belonging to a case essentially of the croupous form at the outset of the illness. The course or termination of the attack, in the vast majority of instances, generally helps to clear up any hesitation in deciding as to the variety to which they mainly belong. Apart from such doubtful, or rather mixed, cases, however, in which there may be temporary room for doubt in classification, there is a vast majority of typical cases in each section, in which the initial symptoms, the course of the complaint, the parts of the lungs affected, the physical signs, the termination, and sequelæ are sufficiently distinct to differentiate sharply between them.

For these reasons I am not inclined to agree with some views recently put forward as to the identity of the two complaints in children. These views, too, are mainly founded on bacteriological grounds, and, in my opinion, the bacteriology of either form is not as yet sufficiently established to upset the prevalent belief in the distinctive character of the two complaints. As furnishing one criterion between them, I might appeal to the totally differing mortalities in the two forms of the complaint. At the Shadwell Children's Hospital, even with weakly East End children, a mortality of 10 per cent. would be above the mark in cases diagnosed as croupous pneumonia. In contrast with this, in cases diagnosed as bronco-pneumonia the mortality has generally, in children under the age of 2 years at least, ranged from 60 to 80 per cent. This increase mortality, if it establishes nothing else, sufficiently demonstrates the greater gravity of cases diagnosed by several observers as bronco-pneumonia over those diagnosed by the same set of observers as belonging to the croupous form.

There is a wide difference, too, in the treatment of the two complaints. In the majority of cases of croupous pneumonia all that is needed is careful nursing and feeding, any active interference on the part of the physician being seldom called for. On the other hand, in the majority of cases of catarrhal pneumonia, every remedy that experience or ingenuity could suggest has been invoked. Foremost among these have been such measures as steam tents, inhalations of oxygen heated over steam coils or given cold, injections of strychnine, alcohol in large doses and other drug stimulants, dry cupping, leeching and emetics. With such active treatment doubtless many a life has been saved. But in spite of all these, coupled with the most devoted attention of the nursing and resident medical staffs, our mortality in bronco-pneumonia remained appallingly high. Any remedy that would serve to diminish this mortality deserves consideration. Such a remedy we think at present we have found at Shadwell, in somewhat large doses of belladonna.

It is known, although I believe not as widely or generally as its importance deserves, that cases of that very fatal sequelæ of diphtheria—paralysis of the diaphragm—can often be cured by pushing belladonna or atropine to their full physiological limits. Since using belladonna or atropine in full doses a large proportion of such cases have recovered. For the knowledge of this property of belladonna I am indebted to several members of the staff of the Great Ormond Street

Hospital. From no one, however, could I gain any satisfactory explanation as to how the drug acted. The only one afforded me was that belladonna in some way stimulated the respiratory centre, and so the effect of the diaphragmatic palsy was counteracted by over-exertion on the part of the other respiratory muscles.

To me, I confess, such an explanation was far from a convincing one. I could not conceive any drug acting continuously as a stimulant on the respiratory centre for the three or four days during which the greater stress of the palsy lasts without there being corresponding times when this hyper-stimulation would be replaced by depression and its attendant evils. Whilst, then, accepting the fact of the beneficial action of belladonna in palsy of the diaphragm, I was compelled to leave any explanation of its mode of action to the unsatisfactory region of the empirical.

About a year ago, however, renewed attention was called, I think by Dr. Ringer, to the marked effect atropine had in limiting or diminishing secretion into the bronchial tubes and pulmonary tissues. It was pointed out that numerous patients recovered from the immediate effects of an operation, merely to die in three or four days choked by the undue effusion into the bronchial tubes, induced by the action of the ether or other anæsthetic, used at the time of operation. For the prevention of this water-logging of the lungs from the anæsthetic it was proposed that patients for several days after operation should be treated with atropine or belladonna. Such a practice is, I believe, carried out in a routine manner in at least one large London hospital.

This view of the action of belladonna seemed to me to furnish the explanation wanted of its beneficial action in diphtherial paralysis of the diaphragm. Belladonna, I would suggest, has no direct influence on the course of such paralysis; it merely prevents or diminishes the secondary pulmonary effects consequent on it, and so staves off an impending asphyxia. In this view of its action, too, the routine treatment of diphtherial paralysis with belladonna, practiced by some eminent specialists, and doubtless founded on experience gained from cases of paralysis of the diaphragm, to my mind, is illogical and likely to be futile, unless the last named grave complication is present or threatening.

For reasons based on the above conclusions I determined to give belladonna a trial in the treatment of broncho-pneumonia in children. If the drug possessed the powers

ascribed to it, then it seemed to me that in broncho-pneumonia, with its free secretion into the bronchial tubes and pulmonary tissues, just such conditions obtained as the drug would control and counteract. So far it has more than answered all that I could have hoped for. With it, as the sole drug administered, there has been in my cases no need for steam tents, oxygen inhalations, unlimited stimulations, dry cupping, and all the rest of the former varied and trying treatment.

Out of several dozen cases treated with belladonna Dr. Shardlow, our resident medical officer, tells me he can only recollect a couple of deaths. Case after case of the complaint in young infants, in the majority of whom with the former treatment one would have anticipated a fatal termination, has, seemingly, owing to belladonna, made a rapid and complete recovery. Sisters in the wards, with a vivid recollection of former methods and their discouraging results, entertain no doubt of the superiority of the later treatment. My colleague, Dr. Eustace Smith, too, is convinced on the same point, and is much struck with the rapidity with which all the symptoms clear up when belladonna is pushed. The same opinion is held by all the resident medical staff as well, and they have, I believe, now come to regard the drug as almost a specific in the complaint. In two cases in private practice lately, when I was called in, the doctors in attendance had already given a practically hopeless prognosis. Both were cases of severe broncho-pneumonia following measles, a complication admittedly grave. In the light of my early experience of such cases I would have inclined to agree with the prognosis already given in each of these cases. More recent experience, however, with belladonna enabled me to modify the prognosis, and both infants did me credit by making a rapid and thorough recovery under that drug.

So far, then, as regards mortality, my experience with the drug is everything that is favorable. I only wish that I could look with any certainty to future experience confirming these happy impressions in so grave a malady as broncho-pneumonia in children. But in the remarkably small death-rate, in my cases at present, I cannot but feel I have been largely favoured by chance. If it were possible wholly to eradicate the complaint by any method of treatment, yet the state of depression remaining after so severe a malady as broncho-pneumonia must result in the deaths of many children. Still, if the death-rate were many times greater with

the belladonna treatment than it has proved up to the present in my experience, even then I would claim a distinct advantage for it over any other treatment that I am acquainted with. Dr. Shardlow and Mr. Elwin Nash, our present house physician, propose publishing a joint paper, giving details and statistics of cases treated with and without belladonna at the end of the present year. Such a paper should prove of value and interest, whether it confirm or refute my present impressions.

It is not only with regard to the mortality, moreover, that my experience with belladonna in broncho-pneumonia is such a favorable one. A very few doses in most cases have relieved the dyspnœa. In a large number, perhaps the majority, the temperature has fallen to normal very soon after the commencement of the treatment. Cases, too, that with former methods might have been expected to run a course of several weeks' duration have, with belladonna treatment, lasted only a corresponding number of days. Other advantages seemingly gained might perhaps be enumerated, but I think sufficient have been adduced in justification of the trial of the drug.

There is of course nothing novel in the treatment. Doubtless many, if not most, of us have used belladonna in various chest complaints in infants and young children. To what then, you may ask, do I attribute my more favorable results over those of others who may have formerly used the drug for the same complaint? The answer perhaps lies in the fact that I have used the drug in larger quantities than usually prescribed, and also, perhaps, a more reliable preparation. The tincture of the late *pharmacopœia*, the preparation usually prescribed, is now admittedly a most unreliable one. That of the new *pharmacopœia*, made from a standardised liquid extract, will doubtless prove all that is desirable, but I have as yet never tried it. The preparation I have used is the extract of the late *pharmacopœia*. This I am told is far from being above suspicion as regards certainty of composition, but in this respect far more trustworthy than its corresponding tincture. This extract I have given in doses of $\frac{1}{4}$ gr. every three or four hours. I have made no distinction, too, in the dose as regards the age of the patient, and have given the same dose to an infant a few weeks old as to a child of 6 or 7 years.

The disadvantages attaching to these somewhat large doses have been singularly slight and unimportant. Out of perhaps 50 or 60 cases in two there has been slight delirium

which was easily cured by lessening the dose. In a large majority, however, there has been some flushing of the skin, and in some a definite scarlet rash. This flushing, somewhat to my surprise, has been more frequent than noticeable dilatation of the pupils. The sisters in the wards, too, tell me that they have noticed that children under the influence of the drug are unduly irritable and restless. Some of this last may, however, be ascribable to the condition left on recovery from acute disease. But were the disadvantages infinitely greater than those described I still think they might fairly be neglected in comparison with the advantages seemingly gained from the use of the drug.—*British Medical Journal*.

CYSTITIS.

By C. G. GEIGER, M. D.,

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Cystitis is a disease of great interest to the general practitioner, resulting, as it does, as a complication of many diseases, not only following pyogenic diseases of the genito-urinary tract, but almost all of the infectious diseases, and also frequently occurring among patients who are required to remain in the recumbent posture for any length of time. This complication may set in during the height of a disease or may appear during convalescence. Toward its cause a number of factors probably contribute. The chemical constituents of the urine are often profoundly altered; the urine is also concentrated, containing, as it does, abnormal substances from the high temperature of the body and the specific infection. Furthermore, the tissues of the bladder are doubtless improperly nourished, and are thus deprived of their power of resistance. The forms of cystitis resulting from the infectious diseases are simple inflammation, purulent inflammation, membranous and phlegmonous inflammation. Cystitis resulting from neuropathic origin may be paralysis of the bladder or trophic changes of the tissues. There are still other causes that have not been spoken of—chilling of the surface of the body, trauma, irritating ingesta, such as cantharides, turpentine and what-not, also general septic conditions, descending infection from the kidneys and ureters. Ascending infection, with or without urethral disease, is the cause of the great majority of cystitis. Infection from the urethra, without urethral lesions, is of common occurrence in the infectious diseases in states of profound systemic depression from any systemic disease. Vesical infection, occurring

as sequelæ of stone, tumor and prostatic disease, is often of urethral origin. It is certain that in the conditions just mentioned the urethra is usually healthy, while the bladder is ripe for infection, and in many cases of this class infective cystitis occurs through urethra by instrumentation. Retention or over-distention of the bladder by decomposed urine, as we all know, is also one of the common causes of cystitis. I am not yet fully in the light regarding the bacteria which cause cystitis. It seems to me an error to term all varieties of cystitis septic. There can surely be an aseptic inflammation of the bladder just as well as any other organ or part of the body, caused by dead cells which have been killed by chemical irritation, metabolic toxins or trophic influences, etc. Even though in a number of cases of cystitis bacteria have been invariably found this does not prove that in each of these cases the inflammation was first set up by bacteria. It has long been known that a congested bladder is a common condition that predisposes cystitis. Cystitis has for its seat of predilection the trigon or trigonium urethral orifice and the region about the ureteral openings. It is in these regions particularly that the most pronounced lesions are usually found, even though the entire vesical mucous membrane is involved.

We may speak of three grades of cystitis—catarrhal, interstitial and peri-cystitis, the catarrhal being the most common form. Either of these three forms may become chronic. In former years cystitis was regarded as one of the most frequent complications of gonorrhœa, and this opinion has been held even in recent times. The latest investigations, however, have materially modified this opinion. The conditions that were formerly considered cystitis are now diagnosed as acute posterior urethritis, involving, as it does, the prostatic urethra, leaving the bladder intact. We do, however, in some cases, find that the inflammation has involved the trigon of the bladder. This condition would be spoken of as urethro-cystitis. This condition can be diagnosed by having the patient pass water in three glasses. If we have simply posterior urethritis we only have a marked cloudiness of the urine in the first glass; the second will be slightly cloudy, and the third perfectly clear. However, if you find the urine in the third glass contains muco-pus we know we are dealing with a pathological condition of the bladder. If there is any abnormal substance or sediment within the bladder it will not be expelled until the last few drops, because it washes away the muco-pus produced in the bladder and

which has been partly precipitated. Some patients notice that with or after the last drops of urine pure pus escapes. By examination with the microscope we find pus, mucus corpuscles and large flat epithelial scales from the bladder. The reaction of the urine is usually acid. If alkaline, this reaction is generally due to hematuria. In a great many cases of cystitis we find albumin present in the urine. We only find albumin in cases where we have had hemorrhage. In some cases of cystitis we find apparently partial paralysis of the bladder. The bladder, despite micturition, remains half filled, and can be felt above the symphysis. If the acute posterior urethritis subsides, the tenesmus and hematuria disappear, while the symptoms of acute purulent cystitis remain, and will likely become chronic if not properly treated. Acute cystitis is a rare complication of acute urethritis. It rarely happens that an acute anterior urethritis extends unnoticed to the parts posterior and then gives rise to cystitis. More frequent are cystitides, resulting from sub-acute and chronic posterior urethritis. The subjective symptoms of inflammation of the prostatic portion of the urethra are similar to those of cystitis, and it is not uncommon to find both conditions existing in the same case. Finger recommends as for differential diagnosis, between posterior urethritis and cystitis, besides urinating in the three different glasses, take a small elastic catheter, introduce into the bladder, wash bladder out with warm water; after draining bladder thoroughly, catheter is left in position, putting plug in same to prevent escape of urine. At the end of an hour the urine accumulated in the bladder is discharged through the catheter. If urine is found clear cystitis is excluded. To the superficial observer phosphaturia is a great many times mistaken for cystitis, as it presents a similar picture. I would recommend Ultzmann's simple method for differentiation as follows: Place cloudy urine in test tube; if cloudiness disappears on boiling after adding nitric acid cloudiness is due to urates. If it becomes more prominent after boiling add a few drops of acetic acid; if it now disappears, cloudiness is a result of earthy phosphates; if unchanged it is due to pus. I think it is well, if we are dealing with a case of cystitis, for us to make a cystoscopic examination. The changed appearance depends on the amount or extent of the progress of inflammation. The bladder is found more or less rugged in toto or in places more or less reddened or traversed by dendritic vessels. The epithelium is lifted from its base and loosened in shreds,

which in part are still adherent to the mucous membrane by thin threads, while the swollen follicles project as dark red points. The mucous membrane bleeds very readily. The mucous membrane, in the vicinity of the internal orifice, including the trigon, is of a very red color. The subjective symptoms are very marked in acute cases. Those of importance for us to remember are, frequent urination, pain, muscular spasm, hematuria, fever and pyuria. Increased frequency of urination is one of the earliest symptoms, often preceding the development of acute pain by some hours. The relief afforded the patient by the passage of a few drops of urine lasts but a short time. As soon as a small quantity of urine accumulates in the neck of the bladder the patient has again an uncontrollable desire to urinate. After passing the amount accumulated, the tenesmus is extremely severe; the patient will lean over a vessel, straining, with great beads of sweat gathering on the surface of the body, and often the bowels are involuntarily evacuated, and later hemorrhage may follow. Pain is now most intense at the neck of the bladder reflected to the perineum and sometimes radiating into the loins or down the thighs. These symptoms are modified as the disease emerges from the acute stage into the sub-acute or chronic. In the acute cases of cystitis the tissue changes of the bladder are not marked, however. In some cases we do find edema of the mucous membrane, but in chronic cases the formative changes are usually very great. The mucous membrane becomes thickened by reason of round-celled infiltration and the conversion of this into fully formed connective tissue. The epithelium may be thickened by excessive cell proliferation, or may be thinned by degeneration, usually fatty in character. The vessel-walls likewise show a proliferative periarteritis. The overgrowth of the mucous membrane, and with the hypertrophy of the muscularis and the contraction of the bladder, explains the rugous appearance often seen.

In order to treat a case successfully we must first make a perfect diagnosis, then remove the cause, when possible, according to indication. It would be useless for us to attempt to cure a case of cystitis, the result of a foreign body, or should it be due to the administration of a drug such as cantharides or tincture of iron or what-not, without removing the irritation, or withdrawal of that article and the substitution of Sanmetto, and in some cases an addition of an alkaline diuretic will effect a prompt cure. It is absolutely necessary in some cases to administer some form of opium

in addition to the above-named drugs, to relieve the tenesmus or great pain. If a microbic affection has occurred, however, the case is apt to be much more serious. The indications of treatment vary according to the intensity and acuteness of the disease. It is always well to bear in mind the regulation of hygienic and dietetic measures. Authors disagree in regard to the matter of rest. Finger advises rest in all cases, and puts the patient on fever diet. In addition to the internal drugs given by him he recommends, for the painful symptoms, suppositories of extract of belladonna and morphine or subcutaneous injection of morphine. In mild cases he only uses, for relief of pain, warm abdominal compresses. I find that in all cases mild diuretics and urinary sedatives are of great importance, and I have found Sanmetto to be peerless in this regard. If the urine remains cloudy and continues to contain pus and mucus local treatment is indicative. It is a wrong idea that some physicians have—that all cases of acute cystitis call for bladder washing; it is never indicated when the urine is bland and the bladder is thoroughly evacuated by the act of micturition. Should there be retention, however, and decomposition, as shown by the passage of foul, ammoniacal urine, irrigation should at once be resorted to. For this I have found nothing better than a two per cent. solution of boracic acid. The temperature of the solution should be blood heat. Care must be taken not to over-distend the bladder in this operation, repeating it once a day for four or five days, and longer, if necessary. I have also had good results from the use of normal salt solution, and have used in some few cases, with advantage, permanganate of potassium, one to twelve-thousandths. The patient should always be in a recumbent posture when irrigation is practiced. In irrigating the bladder I usually use a soft catheter. I have used a short urethral nozzle, but not with as much satisfaction. Should the patient suffer from marked tenesmus and have difficulty in fully emptying his bladder, I always advise water to be drawn with a soft rubber catheter. Great care should always be taken to sterilize whatever instruments are introduced, so that we do not cause new infection. When the urine is clear immediately after having been passed, and on examination shows no pus, the case can be regarded as cured.

CAROID IN MALDIGESTION OF INFANTS.

By ARTHUR W. CONDUCT, M.D., Dover, N. J.

(Reprinted from *Philadelphia Medical Bulletin*).

A very considerable part of every busy family physician's practice consists of work in aiding the reformation of infant's perverse digestion. We have all run the gamut of prepared milk foods, sterilized and condensed, predigested and lactated, in quest of something that would agree with this or that baby, particularly with this or that bottle-fed baby. We have all found that the infantile digestive apparatus is an exceedingly delicate mechanism, requiring finest adjustment, and that, usually, each individual case offers a different problem to solve.

We have all learned, too, that an infant is not nourished by what it swallows, but only by that portion of its food which is digested and assimilated. A proper dietary, therefore, is one that is adapted to the infant's age, constitution and digestive powers; so that, as far as possible, everything swallowed may be digested and absorbed. As one writer states: "Children differ as much in constitution as in feature, and it is impossible exactly to formulate a food that will be applicable to every case. As age and strength increase there is a corresponding development of the gastrointestinal functions, and a call for more and stronger food. On the other hand, should the system be reduced by disease, the digestion sympathizes in the general debility, loses somewhat of its power, and assumes that of an earlier age. In such cases the impaired strength must be sustained and increased by giving only such food as can be completely assimilated, and not by forcing down strong food merely because it is *strong*; for the latter, when not vomited, passes through the bowels undigested, and the little creature starves to death in the midst of plenty, or dies from the ill-effects of the constant presence of fermenting food in the alimentary canal."

It is for the relief of the abnormal condition just described, i.e., the presence of undigested and fermenting food, that we, as physicians, are most frequently called upon to prescribe, and in this day of high-pressure living and bottle-fed infants, such cases are constantly before us. Hitherto, it has been a questionable practice in these cases to furnish one of the innumerable predigested foods; but it has been the experience of the writer that in the feeding of infants, food

which is not entirely predigested, and which therefore stimulates the functional activity of the organs which furnish the digestive ferments, is preferable, as a rule, to food which is entirely predigested, and which therefore requires only absorption, provided that the digestive organs are not overtaxed, *and the digestion is easy and complete*. This statement is based on the fact that the healthy development of the infant requires the normal functional activity of all its organs, of those of the digestive system as well as of the other systems. There are certain natural functions that should be allowed to act as they do on human milk, and it seems irrational and contrary to the laws of physiology not to encourage all functions to act naturally, each in its own province, instead of forestalling their action and allowing them to fall into disuse and thus become weakened. The allowing a developed function to fall into disuse might be said to occur in predigesting albuminoids; i.e., in digesting them outside of the body, instead of inside.

Furthermore, it is a well-established fact that the digestive juices have important *preservative* action. The chyme is a mass admirably adapted for putrefaction or fermentation, and such a mixture outside of the body, at the same temperature, would quickly decompose. Such decomposition, however, occurs in the alimentary tract of the infant, only through some previous excesses, or errors in diet, which have resulted in a deficiency of the digestive secretions, and therefore a proportionable loss of their antiseptic function. The problem, then, is not to supply food which has been artificially digested outside of the body, but to follow nature's method and digest it inside of the body, aiding and encouraging the organs themselves to a natural performance of their duty.

To attain this object all have felt the want of a digestive ferment that would act independently of its environment; one that would perform temporarily the part of the normal secretions in the various portions of the alimentary canal, not only aiding in the digestion of all classes of food, but acting enzymotically in checking fermentation and the development of the microbes causing enteric diseases. Pepsin, diastase, pancreatin, etc., though unorganized ferments of the nature required, have all been tried and found wanting in some essential quality, one being restricted in action to an acid medium, another to an alkaline; one digesting starches only, another only proteids. What has been needed, therefore, is a ferment possessing both amylolytic and proteolytic

properties, and whose digestive action is not inhibited by its surroundings; in other words, an unconditioned ferment

While the writer does not profess to know of an infallible agent of this character, yet he believes that the vegetable digestive ferment, Caroid, obtained from the juices of the plant *Carica Papaya*, will be found to answer the requirements of the case more nearly than any other unorganized ferment or enzyme yet discovered. Its general action upon proteids and starch, in acid, alkaline, or neutral media; its striking action upon milk casein, which it dissolves completely and converts into assimilable products in two or three hours, gives it unusually wide scope, and a little experience marks it as something entirely new in the line of digestives, something more positive and certain than our previous experience with artificial digestives had warranted us to expect.

In its action upon milk the enzymotic power of Caroid is exhibited in a very striking manner. Ordinarily, as is well known, the casein of cow's milk produces large and firm masses in the stomach; masses that the normal digestive ferments penetrate with such difficulty that they frequently cause indigestion in the infant, and appear in the stools in coagula of greater or less size. Acted upon by this ferment, however, cow's milk closely resembles human milk in appearance, its casein being so digested that it either is not at all precipitated by acids, or is precipitated, like that of human milk, in fine feathery flakes. When the process is continued, these flakes are subsequently disintegrated into the form of the soluble syntonine, and finally transformed into a true peptone, capable of diffusing itself through animal membrane.

Like any other efficient remedial agent Caroid must be used intelligently and with discretion, in order to obtain best results. There are, of course, some cases of infantile indigestion, in which, owing to the excessively acid condition of stomach, the milk is curdled and expelled so quickly that the ferment is given no chance to act upon it. In such cases it has been my custom to combine lime water or some other alkali with the milk, and prescribe the ferment in solution (one grain dissolved in sweetened water) immediately after feeding, or, better still, one-half teaspoonful of the Essence of Caroid. The latter is a permanent and palatable solution of the ferment recently prepared by the American Ferment Co. (the manufacturers of Caroid), which I have found especially serviceable, and which, when properly indicated and applied, has not failed to relieve any cases of maldiges-

tion, howsoe'er severe or various the symptoms may have been. Another point in favor of the Essence in these cases is the trouble saved in preparing the Caroid powder itself for the babies, nurses being proverbially careless and inefficient in attending to such duties.

The following typical case of the more severe form of infantile maldigestion is cited here as an illustration of the superior value of Caroid as a digestive agent in pediatric practice :

Howard Guest, æt. 16 months suffered from an acute attack of intestinal indigestion brought on by a too free indulgence in "mashed potato" at dinner. Classical symptoms of enterocolitis supervened; tympanites, excessive; profuse, frequent fecal discharges of undigested milk curds, large and small, mixed with muco-purulent material—greenish, fetid and acid. The fever, which ranged as high as 105 at the onset, was controlled nicely by the abdominal ice-pack. Meningeal symptoms were also controlled by applying ice-cap to the cerebellum. The heart's action was sustained by strychnia and glonoin. Local treatment consisted in coating the intestinal tract with bismuth sub. gallate; thoroughly disinfecting and deodorizing discharges; daily use of intestinal irrigation with saline solutions per rectum, and ol. ricini, ʒ ij, per os; while hydrargyrum bichlorid., $\frac{26}{100}$ grain was administered every two hours.

The food, at the onset, consisted of Mellin's food with milk. The treatment was continued throughout three months, during which time various foods were in turn made use of, but had to be discarded; to wit: Mellin's imperial grannum, peptogenic milk powder, malted milk, Allenbury's food and Eskay's food. The various modifications of sterilized and Pasteurized milk were also used at first, but each, in turn, had to be discontinued. We were finally forced to discard all milk foods, and then resorted to the use of expressed juice of slightly charred beefsteak, giving as high as twenty-four ounces of juice daily. The child's strength continued recuperating nicely with the meat juice, for three weeks, but after that time it did not seem to satisfy him. An attempt was then made to use a modified milk, but immediately curds and mucus appeared in the fæces, with concomitant symptoms, and the effort had to be abandoned.

Finally, Eskay's food (the well-known albuminized milk food), was again resorted to. But this time we added to each feeding (ten minutes prior to its administration), one grain of Caroid powder; our object being not to entirely

predigest the food (before giving), but simply to initiate the process, and better enable the ferment to act locally on the gastric and intestinal linings in dissolving extraneous mucous formations. The child took the food greedily, and, though after several feedings a careful examination was made, the fecal discharges failed to reveal any evidences of curds, or even of acidity. The subsequent progress of the case was entirely satisfactory, no untoward symptoms arising at any time to interfere with a rapid convalescence and speedy return to health. Without the peptogenic and antiseptic action of the Caroid in this case, and its stimulating effect upon the normal digestive secretions, I am satisfied that the child could not have been fed upon milk foods; and that, as a result, scurvy would doubtless sooner or later have manifested itself.

LUMBAR COCAINIZATION.

Chaput in discussing the question before the Société de Chirurgie concluded as follows: 1. Lumbar anesthesia is preferable to general anesthesia for old persons, cachectics, phthisics, visceral affections and operations on the lung. 2. By reason of the absence of shock and reactions in the lungs and kidneys, it is superior to general anesthesia for most operations below the xiphoid appendix in men and in courageous women. 3. It appears to be less satisfactory than general anesthesia in young and nervous women. 4. It is contraindicated for children, for nervous subjects, and for difficult laparotomies. 5. For operations above the xiphoid it is not as good as general anesthesia, because of its slowness and transient duration.—*Gaz. des Hopit.*

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Editorial.

SCARLET FEVER.

In the treatment of scarlet fever everything depends upon watchful and skillful nursing. As soon as the eruption upon the skin appears the child should be given a warm bath and be put to bed in a large, well-ventilated room in the upper part of the house. All unnecessary articles of furniture and clothing should first be removed from the room, and those who attend upon the patient should not mingle with the rest of the family.

In the earliest stage of the disease the temperature of the room should be kept at about sixty-eight degrees Fahrenheit, but later, during the period of scaling, when the skin is tender, the temperature should be raised to seventy or seventy-two degrees Fahrenheit. Throughout the sickness the room should be well ventilated, care being taken, however, not to expose the child to draughts.

The best recoveries are made by children whose only nourishment is milk until convalescence is fully established. The milk may be given plain, with lime water, with Vichy, or predigested.

After the eruption has disappeared, and the scaling is well advanced, broths, eggs, chicken jelly and the like may be cautiously added to the dietary. Cooling drinks should also be given at frequent intervals. Cream-of-tartar lemonade,

made by dissolving a teaspoonful of cream of tartar in a pint of hot water, to which, after cooling, lemon and sugar are added to suit the taste, is a pleasant and useful drink, and has a beneficial effect upon the kidney and bowels.

If the throat is much inflamed small pieces of ice may be held in the mouth until dissolved. Allowing small pieces of ice to melt slowly in the mouth also relieves an irritable stomach and excessive thirst.

Even in the mildest attacks of scarlet fever the skin should be carefully attended to, and every effort must be made to maintain its functions. If this is done kidney complications are far less likely to develop.

The entire body of the patient should be carefully sponged with lukewarm water twice a day, care being taken, however, to uncover only that portion of the body which is being bathed. After each sponging some oily substance, such as vaseline or glycerine, and cold cream—one part to eight—should be thoroughly rubbed into the skin. This procedure not only relieves the itching and burning, but prevents the spread of the contagion.

During convalescence the patient must be carefully watched and sedulously protected from becoming chilled or fatigued; an inflammation of the kidneys is usually due to exposure at this time. For this reason the patient should be kept in bed a week, even in the mildest cases, and not allowed to leave his room for fully three weeks after the fever has entirely disappeared.

VACCINATION.

Much of the prejudice against vaccination which still exists in the minds of many people is fed by the occurrence now and then of unpleasant or even dangerous inflammation, apparently caused directly by the operation. This inflammation may often be prevented, however, by the exercise of a little care, or it can be robbed of any serious consequences by intelligent treatment.

The danger of the inoculation of certain constitutional diseases, which was once urged with some reason against vac-

cination, is now done away with by the almost universal custom of taking the virus from a healthy calf instead of from the arm of a vaccinated child.

Sometimes a wide extent of surface on the arm surrounded the point of vaccination becomes hot, red, swollen, itching, and perhaps even painful. This inflammation, beyond the discomfort it causes, is seldom serious, and requires only the application of some smooth baby powder or a cold lotion, round, but not over, the vaccination sore. In some cases the inflammation persists and spreads in spite of these simple measures, and then, especially if the whole arm becomes involved, or the glands under the arm become swollen and tender, constitutional treatment may be added to the local.

Better than treatment, however, is the prevention of the causes of this inflammation. Sometimes it is due to friction by the clothing or to scratching by the child, which breaks the skin over the little blisters, or tears off the scab and irritates the raw place so produced. To prevent this a vaccination shield may be worn, or better yet, the part may be covered with a wide, thick layer of cotton fastened to the arm by adhesive plaster.

Other causes of a sore arm after vaccination are dirt, catching cold, indigestion from improper diet and constitutional weakness. With some children every scratch is followed by inflammation, which takes a long time to get well. Such children will almost surely have a sore arm after vaccination, and, if possible, the operation should be deferred until they have been built up by tonics and fresh air. During the entire vaccination period the diet should be simple, meat and all "heating" foods being very sparingly indulged in.

ANTIMONY IN MEDICINE.

There are many medicines which, fifty years ago, occupied prominent places in the *armamentarium* of the physician, and which gave excellent results that now are seldom used. One of these is tartarized antimony, a remedy of

great power, but which has much fallen into disuse. Its undoubted power, especially in diseases of children, has somewhat lately been championed by Dr. J. Comby, physician to Trousseau's Hospital, and published in one of our French exchanges. Tartar emetic is an active local irritant to the skin and mucus membrane. At present it is very seldom used as a revulsive. Its action in this respect however, and the pustules which it produces are well known to the older practitioners. Formerly it was much employed as a local application in pertusis, acute and chronic pulmonary affections, rheumatic arthritis, dropsy, gastro-enteritis, tuberculous meningitis, dysentery, hepatitis, etc. When given in large and frequently repeated doses it will produce pustular eruptions in the mouth, throat, œsophagus, stomach and bowels. It may also cause hæmatemesis and malaria. When prescribed it should be given in small doses and well diluted.

In its systemic action tartarized antimony is emetic, purgative and diaphoretic. When given in repeated small doses, or when combined with opium, its emetic action may be avoided and a tolerance established. If abundantly diluted it has a purgative instead of an emetic effect. In excessive doses it occasions symptoms closely resembling those of cholera accompanied with marked collapse. Its most valuable use at the present day is as a component part of acute cough mixtures. It certainly promotes bronchial secretion liquifying the mucus and stimulating the contractile fibers of the lubes, and in this way is very useful in the first stage of a bronchial cough.

It is also a diaphoretic, but this is not a constant result of its administration. It is claimed that tartarized antimony is too depressing to be given to children. This is denied by Dr. Comby, at all events, to a certain extent. He does not believe that age should be an absolute contra-indication, especially if used in moderate doses. He finds that it does not depress the system to a greater degree than does ipecac—if the dose is properly proportioned.

It may be employed in acute bronchitis, pleurisy, acute pneumonia, whooping cough and gastric disturbance associated with fever in children. Dr. Comby goes so far as to recommend the drug in influenza, in the beginning of croup and certain congestive forms of pulmonary tuberculosis, although this view will scarcely command general assent. Tartar emetic has afforded brilliant results in chorea, and its action, in this disease, may be compared to that of arsenic. In acute articular rheumatism, complicated with pleurisy or pericarditis, the same preparation has been successfully used by M. Jaccoud. The famous method of La Charite in lead poisoning owes its efficacy to tartarized antimony.

Dr. Comby concludes his interesting paper with the following passage: "Finally antimony merits neither the enthusiastic praise which it formerly received nor the neglect into which it has fallen to-day. It may still, within a modest and restricted sphere, render certain services in infantile medicine, not because it is endowed with any specific virtue, but on account of its evacuant, sedative and alterative properties. These qualities it possesses in reality and in a high degree; the problem is to utilize them properly in practice."

THE POSITION OF THE HEAD IN SLEEP.

The Dublin *Medical Press* says: "Custom has imposed the use of the bolster and the pillow, but it does not of necessity follow that they are advantageous or conducive to sound sleep. Physiologically, we are entitled to entertain a doubt, seeing that physiologists are still unable to state authoritatively whether the brain in sleep is congested or anæmic. The general experience is that the lower the head the deeper is the sleep, and *vice versa*. Apart from morbid conditions which render it impossible to some persons to sleep with the head low, conditions which vary *ad infinitum* from mere preference for a thick bolster to positive orthopnœa, habit, and, possibly, physiological conformation, render the head-low position in bed intolerable to some. It

is urged against the use of these supports that they inflict a constrained position of the neck, which interferes with the passage of blood to and from the brain, and contracts the thorax. On the other hand, unless one lies on the back it is obvious that the neck must be uncomfortably curved in the absence of a pillow, far more so than would result from even a very thick bolster. On the whole, it would seem that in order to obtain sleep as deep and as reposeful as possible, we ought to aim at having the head as low as is consistent with actual comfort. To submit to absolute discomfort in view of a problematical and much-disputed advantage is not an experiment that will commend itself to the majority of mankind."

EPILEPSY AND ADENOIDS.

The Dublin *Medical Press* says: "Two cases of epilepsy in which marked amelioration followed the removal of enlarged tonsils and adenoids were brought by Mr. Lennox Browne before the last meeting of the British Laryngological Association. While these cases are by no means the first in his experience nor the first reported, Mr. Browne thought it only fair to say that the experience of throat specialists of the benefit of removal of adenoids in this class of case would appear to be more favourable than that of neurological experts who, presumably, did not attach so much importance to their causal influence. The main point of interest, however, is that, while large doses of bromide proved inert, prior to removal of the adenoids, the drug albeit in very small doses, appeared to be essential to complete subsidence of the peripheral irritation due to the glandular overgrowth. Dr. Dundas Grant confirmed the experience of his colleague by reference to the many cases he had seen and treated since his appointment at a special hospital for nervous diseases; and the president, Mr. Mayo Collier, clinched the matter, by pointing out to those who doubted the reasonableness of the association that the point of exit of almost all the cerebral nerves was so closely ap-

proximate to the site of the adenoids that it was a subject for surprise that the casual relationship should ever have been in doubt.

DENTAL SURGEONS FOR THE ARMY.

Since the commencement of the great Boer War demands of a persistent character have come from the Army in the field for dental men to look after the men's teeth. Toothache, we all know, is persistent, and if any pain takes all work out of a man it is that of an aching tooth. From this cause an immense number have been made absolutely useless in South Africa, and the officers of the Royal Army Medical Corps have not been able to cope with the trouble. And how could they, for they get no dental education beyond possibly teeth extraction, and every aching tooth does not demand removal. So pertinaciously has this demand been made that it seems likely to receive attention in the near future. The same complaint reached the Government of the United States from the Army in Cuba and the Philippines, and, as our American cousins lead the world in dentistry, they have already acted in the matter. During the present month sixteen dental surgeons have been named for the United States Army, and more will follow. They have not been commissioned as officers, though we see no reason why they should not be, but have entered into a three years' contract with the Surgeon General, which may be renewed. During their service they wear the uniform of a First Lieutenant—save that the braid on the shoulder-straps is silver instead of gold.

CANADIAN MEDICAL ASSOCIATION.

WINNIPEG MEETING, AUGUST 28 TO 31, 1901.

We are pleased to be able to say that arrangements for the Winnipeg meeting (Aug. 28 to 31 next) are progressing favorably. From what we can learn the gathering promises to be large and representative. Dr. O. M. Jones, F.R.C.S. (Eng.), Vancouver, will deliver the address in Surgery;

and Dr. J. R. Jones, Winnipeg, the address in Medicine. Several interesting discussions are arranged for, and the social side is being looked after as only a Western City can do it.

There is to be an outing to Fort Garry, and on Saturday, the 31st August, an excursion to Brandon given by the profession of the Prairie City.

The Railways have promised a single fare return rate on the certificate plan, good going August 20 to 28 and good to return not later than September 15. If the all-rail going trip is taken and one desires to return by the Lake route, a ticket will be issued on payment of \$4.25—just enough to include meals and berth. If one desires to return by rail the ticket is issued *free*. This makes it possible for every one to attend, and a large number should, for we all have friends who are expecting us to visit Manitoba, the North-West or British Columbia, to all parts of which return tickets will be issued *after* the meeting for single fare from Winnipeg upon representation of the certificate of attendance.

The General Secretary, Dr. F. N. G. Starr, Biological building, Toronto, will be glad to furnish any information to persons intending to take advantage of this unusually cheap trip to the West.

The question now seems to be, how is one to make arrangements to get away at the time of the meeting, for it seems to be universally conceded that to attend the Winnipeg meeting is the proper thing to do. The Railways, having granted a single return rate to the meeting, have assisted in breaking down one of the barriers, and now one hears from all sides of physicians intending to make Winnipeg the central point of their holiday trip, and Winnipeg is making preparations for a great gathering! Many physicians, it seems, will also take advantage of the offer of the single fare rate from Winnipeg to points in Manitoba, The Northwest, British Columbia and North Dakota, after they have enjoyed the hospitality of the Winnipeg profession.

The question of Dominion Registration will come up for a full discussion—it is hoped for the last time before this thing to be desired becomes a realization.

The following is a list of some of the papers already promised :—

The address in Medicine—J. R. Jones, Winnipeg.

The address in Surgery—O. M. Jones, Victoria.

The address in Gynæcology—Thomas S. Cullen, Johns Hopkins, Baltimore.

The Early Diagnosis and Treatment of Pulmonary Tuberculosis—D. Gilbert Gordon, Toronto.

The Nose and Throat, in General Practice—John Hunter, Toronto.

Remarks on some interesting diseases of the Age—G. H. Burnham, Toronto.

Orthopædic Treatment of Deformities and Disabilities Resulting from Paralysis—B. E. McKenzie, Toronto.

Title to be Announced—D. J. Gibb Wishart, Toronto.

A Practical way of Distinguishing Between the Human and Animal Blood—G. Silverthorne, Toronto.

Infectious Pneumonia —W. S. Muir, Truro, N. S.

Sclerotic Ovaries—A. L. Smith, Montreal.

Removal of Large Tumor from Os Uteri after Labor had set in—A. Armstrong, Arnprior.

Tuberculosis in Milk—Prof. Russell, University of Wisconsin.

The Present Outbreak of Small-pox in America—H. M. Bracken, Health Officer, Minnesota.

Hæmatology of the Blood—L. H. Warner, New York.

Skin Diseases—Lantern Demonstration—F. I. Shepherd, Montreal.

The Treatment of Consumption in Special Institutions—Dr. Richer, Montreal.

Disposal of Tuberculous Sputen—J. H. Elliott, Gravenhurst.

Title to be announced—G. Chambers, Toronto.

Chronic Ulceration of the Stomach simulating Cancerous Disease—Relation of a Case of Gastro-Enterostomy with Murphy Button—Recovery—J. F. W. Ross, Toronto.

Report of Cases Treated with the Hot Air Bath—W. H. Peplar, Toronto.

Title to be announced—J. N. Hutchison, Winnipeg.

Some Forms of Gastric Hyperacidity and their Treatment—C. F. Martin, Montreal.

Syphilis as seen by the Ophthalmic Surgeon—F. Buller, Montreal.

On the Necessity of a Better Recognition and Isolation of Trochomatous Patients in Canada—W. Gordon Byers, Montreal.

Title to be announced—J. L. Bray, Chatham, Ontario.

Epidemic Cerebro-Spinal Meningitis—A History of Some Cases—James McKenty, Greta, Man.

Pulmonary Tuberculosis, its Treatment and Prevention—A. P. Proctor, Kamloops, B. C.

Mild Small-pox—G. A. Kennedy, Macleod, Alta.

Title to be announced—C. J. Fagan, Victoria, B. C.

Book Reviews.

The American Year-Book of Medicine and Surgery for 1901. A yearly digest of scientific progress and authoritative opinion in all branches of Medicine and Surgery, drawn from journals, monographs and text books of the leading American foreign authors and investigators. Arranged with critical editorial comments, by eminent American specialists. In two volumes—volume I including general Medicine. Octavo, 681 pages, illustrated. Volume II, general Surgery. Octavo, 610 pages, illustrated. Philadelphia and London; W. B. Saunders & Co., 1901. J. A. Carveth & Co., Toronto. Per volume: cloth, \$3 net; half-morocco, \$3.75 net.

This excellent Year Book is again issued in two volumes, as was done last year, volume I dealing with subjects referring to Medicine, and the other, volume II, those pertaining to Surgery. As mentioned, when reviewing the work last year, this arrangement has the two-fold advantage of convenience without extra cost, and the possibility of purchasing either work by those who do not require both. The issuing of the year-book in two volumes was begun in

1900, and the idea seems to have met with such general approval that the publishers decided to follow the same plan with this work for 1901. Dr. Gould and those associated with him seem to have produced an even more interesting and practical year-book than was last year's. These gentlemen have, so to speak, "boiled down" an immense quantity of medical and surgical literature, collected from many different countries, into a comprehensive and well-arranged map of useful information. We have previously expressed our high appreciation of this excellent year-book, and a closer acquaintance has not diminished our approval of the work.

The special contributors to the book on Medicine include Samuel W. Abbot, Archibald Church, Louis A. Duhring, D. L. Edsall, Alfred Hand, junr., Milton B. Hartzell, Reid Hunt, Wyatt Johnston, Walter Jones, A. O. J. Kelly, David Riseman, Louis Starr, Alfred Stengel, A. A. Stevens, G. N. Stewart and Reynold W. Wilcox. Full credit is given to authors and journals. An excellent index forms a key to the text.

The year-book of Surgery has been compiled by the following eminent specialists: J. Montgomery Baldy, Charles H. Burnett, J. Chalmers Da Costa, W. A. Newman Dorland, Virgil P. Gibney, C. A. Hamann, Howard F. Hansell, Barton Cooke Hirst, E. Fletcher Ingals, W. W. Keen, Henry G. Ohls, Wendell Reber and J. Hilton Waterman. As shown by the list of contributors, this volume embraces obstetrics, gynæcology, otology and ophthalmology in addition to general Surgery. All the newer procedures in diagnosis and treatment are brought out here with ample fullness. The work is handsomely illustrated. It is one of which no progressive surgeon can well deprive himself.

R. C.

Aphorisms, Definitions, Reflections and Paradoxes, Medical, Surgical and Dietetic. By A. Babagliati, M.A., M.D., F.R.C.S., Ed., late President of the Leeds and West Riding Medico-Chirurgical Society, Consulting Surgeon Bradford Children's Hospital, London. Bailliere, Tindall & Cox, 20 and 21 King William Street Strand, 1901. Price, 7s. 6d.

This is a somewhat singular book, and yet is one that will well repay perusal. Its title, in my opinion, hardly expresses the varied material which is found in its pages. It is really an open letter by a medical man of many years' standing and excellent position to his *confrères*, in which he gives free expressions to many wholesome truths, and to some which are peculiarly his own. He is certainly in many ways a *free lance*, and though, possibly, at the present time some of his views will be thought erratic, yet some, we believe, will in time be not far from the truth. Those of us who can count almost a half century of laborious professional work will hardly agree nor yet at the same time deny that there is some truth in paragraph 302 (the book is arranged in paragraphs), which is as follows: "There is probably no department of human knowledge into which so much labour has been put with so little results as

into Medicine." Much of the diseases from which the human family suffers he attributes to overfeeding, and he is certainly right to a great extent. There is no doubt we all eat too much, and to our detriment, but when he asserts that it causes more fevers than bad air, most of his *confrères* will not agree with him. The author recommends eating twice rather than thrice daily, but never, under any circumstances, *more* than thrice. He shows up, to his satisfaction at all events, that there is no necessity of giving special attention in feeding to a growing boy or girl.

The sections on surgery are also very interesting, and seem to take the breath away. If anything seemed certain in medicine it was surely the great advance made in surgery in the present generation. The advance is not denied, but here is a writer saying that the value of the germ-theory on which that advance has been built has been greatly exaggerated, and that surgery is far too frequently resorted to for the cure of diseases. It is here that the writer will probably encounter most serious opposition to his views; and yet the case of hæmorrhoids, detailed in section 520, when the writer himself recommended operation as the only means of cure, and where yet the patient made a perfect recovery without surgical interference, suggests that what he says may be true, at least, sometimes. The sections on the prevention of the ailments usually treated by surgery deserve careful consideration from this point of view.

Perhaps the most notable point about the book is the attempt of the writer to take a general and comprehensive view of his subject, and to make an attempt at historical continuity in considering it. Frequent references are made to the ancient writers on medicine, and sketches here and there thrown off as to the state of medical opinion at different periods of history. No references are made to living writers on medicine, probably because the writer wishes to avoid, if possible, personal controversy. The attempt at philosophical comprehensiveness naturally brings up the question of specialism; and the writer's criticism of the course now being assumed by medicine is summed up in his dictum that most special or local ailments are the local expression of general states, which states must therefore be treated if the local ailments are to be cured.

To the influence of heredity in the induction of disease the writer seems to attach much less importance than is usually done. Organization, it is said, is inherited; disease is acquired—not always, but nearly always. The chief law of heredity is formulated thus: "Like causes acting on like organisms in succeeding generations induce like effects." A whole section devoted to the heredity of disease deserves careful consideration.

The book ends with cases in whose treatment the views of the writer have been put into practical operation, with, it appears, good results. The section devoted to the laws of the organism as regards disease will probably stir up as much controversy as any in the book,

F. W. C.

The Acute Contagious Diseases of Childhood. By Marcus P. Hatfield, A.M., M.D., Professor Emeritus of Diseases of Children, Northwestern University Medical School; Professor of Diseases of Children, Chicago Clinical School; Attending Physician, Wesley Hospital. 142 pages. Price, \$1.00 nett. G. P. Engelhard & Co., 358-362 Dearborn Street, Chicago, 1901.

This small volume gives a clear, short, yet comprehensive description of all the acute diseases of childhood—diseases many of which have such a serious influence on after-life. No one can read it without feeling that his perusal has impressed upon him many special points which would have escaped him in a larger volume, and these points are of great practical importance.

F. W. C.

Transactions of the American Pediatric Society—Twelfth Session, held at Washington, D.C., May 1, 2 and 3, 1900. Edited by Walter Lester Carr, M.D. Reprinted from *The Archives of Pediatrics*, 1900.

Those interested in diseases of infants and young children (and who in our profession is not?) will find in this volume a great deal of food for serious thought. The address of the President, on "The Ambulatory and Hospital Management of Gastro-intestinal Derangement of Infancy in the Summer Months Among the Poor of Large Cities" is a thoughtfully prepared paper on a subject which appeals with peculiar force to those of us who practice in large and crowded cities where, during the heated term, the slaughter of innocents is simply awful. A valuable paper, from a clinical standpoint, is that by Dr. Huber, of New York, on "Naso-pharyngeal Diseases in Children." Dr. Blackader, of Montreal, contributes an interesting paper on "Enteric Fever in Childhood."

F. W. C.

A Text-book of Practical Obstetrics. By Egbert H. Grandin, M.D., Gynæcologist to the Columbus Hospital, etc., etc., with the collaboration of George W. Jarman, M.D., late Obstetric Surgeon of the New York Maternity Hospital, etc., etc. Third edition revised and enlarged. Published by F. A. Davis Company, Philadelphia, New York and Chicago, 1900.

It is no wonder that the authors in their preface express gratification at the demand existing for their works requiring a new edition in such a short time. No written criticism can possibly equal a buying demand from students and practitioners. The work has been improved in several ways, and increased by a chapter on the anatomy of the female organs of generation and with embryology. The greatest fault that can be taken to the work is perhaps the advice given with regard to the delivery of the head in normal cases, more particularly the introduction of the finger into the rectum,

which is both as a rule unnecessary and apt, in a large number of cases in the hands of those not trained in the modern schools, to cause sepsis. It can only be called dirty midwifery. However, the work taken altogether is most excellent, and can be highly recommended to any one desiring a modern work on midwifery.

A. L. R.

Stricture of the Urethra and Hypertrophy of the Prostate. By P. J. Freyer, M. A., M. D., M. Ch., Surgeon to St. Peter's Hospital, Lieut-Colonel Indian Medical Service (retd.). Baillière, Tindall & Cox, 21 King William Street Strand, London, England, 1901.

Having read this little book carefully, and with much interest and pleasure, we can confidently recommend it to practitioners and students. It is written in a pleasing style, and the subjects treated are presented in a clear, concise and practical manner.

The author speaks with authority, out of a full and ripe experience, and on almost every page may be recognized the teaching of the wise and cautious surgeon.

The methods and treatment advocated are those which have been found most satisfactory in his own experience. The modes of examination and technique of operations are given in detail, and in such a manner as must prove of great value to the practitioner.

We are thoroughly in accord with his teaching when he says: "If a structure is not dilatable without the employment of force in introducing instruments it is not a case for this mode of treatment and must be relegated to a cutting operation." He holds that "the simple contact of an instrument with the morbid tissues of a stricture renders them soft and easily dilatable, and at the same time induces absorption, and that these results are independent of any mechanical pressure." After the operation of internal urethrotomy it is advocated with a good deal of force and reason that "no instrument should be introduced till the wound has healed, that is, till about a fortnight after the operation." It is maintained that repeated instrumentation causes irritation and the formation of granulation tissue, which subsequently undergoes contraction, and thus defeats the object for which the operation was performed. The treatment of stricture by divulsion and electrolysis is justly condemned. Castration as a means of treatment in cases of enlarged prostate has, he considers, but a limited field of usefulness. "A man, as a rule, will only consent to have his testes removed when less drastic measures have failed and he is driven to it by the agony attendant on the final stages of the disease. When that period is reached castration is in itself an operation attended with a heavy mortality" (20 per cent.).

Vasectomy is advocated as having a wider field of usefulness, although "it is neither so rapid in its results nor so radical a cure as castration. As, however, vasectomy does not interfere with the sexual power and does not involve emasculation, patients consent to its performance at an early stage of the prostatic disease, when it has the best prospects of success." He says that vasc-

tomy effectually prevents the recurrent epididymitis and orchitis, which are such painful and distressing complications in prostatic patients. This happy result would alone entitle this operation to an important place in surgery. The book is printed in clear type, on good paper; the illustrations are ample and well selected.

F. R. E.

Essentials of the disease of Children. By William M. Powell, M. D. Third edition thoroughly revised. By Alfred Hand, jun., M. D., Dispensary Physician and Pathologist to the Children's Hospital, Philadelphia. 12 mo., 259 pages. Philadelphia and London: W. B. Saunders & Company. J. A. Carveth & Co., Toronto. Price, \$1.00 net.

In this revised edition numerous additions and changes have been made in the book so that it continues to represent the present state of pediatrics. The book aims to furnish material with which students may lay the foundation for the successful practice of medicine among children. The section on infectious diseases has been re-written, as well as many of the paragraphs on pathology. A number of new chapters have been added, among others one on infant feeding.

F. W. C.

Unique Card Index System. Technique Publishing Co., 404 E. 14th St., New York.

We are in receipt of a unique card index system, published by the *Journal of Surgical Technology*, and given with a year's subscription to that journal for two dollars. The system contains over 700 references, under 108 separate classifications, on accounts, case records, therapeutics, physician's supplies and allied sciences. By the use of blank cards it can be extended in any direction the physician desires. The information is up to date, the plan is really unique and the publisher's offer is a generous one.

R. C.

PUBLISHERS DEPARTMENT.

LITERARY NOTES.

The *Edinburgh Review* article on "Unimaginary Love Letters," which forms the leading feature of *The Living Age* for July 6, diverts the reader's attention from certain recent ingenious inventions in the line of epistolary love-making to the real thing as exhibited in the letters of Abelard and Heloise, Mary Wollstonecraft Godwin, Keats and Prosper Mérimée. The article is of striking literary and personal interest.

Mr. G. L. Calderon's article on "The Wrong Tolstoi" in *The Living Age* for June 29 is a diverting exhibition of the sharp contrasts between Tolstoi's philosophy and his actions.

Frederic Harrison's "Impressions of America" are reprinted in *The Living Age* for July 13, from *The Nineteenth Century*. Mr. Harrison, as was to have been expected, is an amiable critic, and he is also more discriminating than many Englishmen who have discoursed upon America.

CANADA MEDICAL RECORD

JUNE, 1901

Original Communications.

CASE OF UTERINE POLYPUS CAUSING SEVERE CONTRACTIONS RESEMBLING LABOUR PAINS LASTING SEVERAL YEARS.

REMOVAL—RECOVERY.

By A. LAPHORN SMITH, B.A., M.D., M.R.C.S., Eng.

Professor of Clinical Gynæcology in Bishop's University, Montreal; Professor of Surgical Diseases of Women in the University of Vermont, Burlington; Surgeon-in-Chief of the Samaritan Hospital for Women, Montreal, and Surgeon of the Western Hospital.

Mrs. T., 55 years of age, consulted me on the 21st of July, 1901, for a bearing down pain in the pelvis, from which she had been suffering for 12 years. She gave me the following history: She began to menstruate at the age of 13; the flow being profuse, painful and irregular. She was married at the age of 27, and had 9 children; her confinements were very quick, but she had hæmorrhage each time. Her last child was born 14 years ago, and she has had no miscarriages. Twelve years ago, or two years after her last child, she noticed a lump in her abdomen extending 3 inches above the umbilicus, and she began to have bearing down pains and to loose large clots, and when she was not passing clots she was loosing much dirty water or gluey discharge. During these 12 years she has had to remain in bed many times for 10 or 14 days at a time. She has been constipated nearly all her life, except for 6 months last year she had diarrhœa every morning. The patient now presents a very

waxy and slightly bronzed appearance, and has, moreover, a heart murmur, mostly due to anæmia. On *examination* the os uteri was found to be widely dilated, so that two fingers could be introduced into the cavity which contained a movable, smooth body about the size of a 6 months' foetal head. By firmly depressing with the other hand the fundus of the uterus the tumour was found to have a pedicle about 2 inches wide situated at the top of the uterine cavity. During the examination there was considerable bleeding, and there was a very bad smell on the fingers afterwards.

Diagnosis.—A fibrous polypus which had developed in the wall of the uterus (interstitial) 12 years ago, and had been squeezed by uterine contraction into the cavity of the uterus becoming then submucous. This had, of course, increased the number of square inches of mucous membrane, and consequently the capacity of the uterus to bleed. Also the efforts of expelling the tumour from the wall into the cavity and then from the cavity into the vagina, which latter it had not quite succeeded in doing owing to the shortness of the pedicle, these contractions had developed the whole bulk of the uterus until the venous circulation had become obstructed and the mucous membrane had become varicose. The only element of doubt in the diagnosis was whether this benign tumour had taken on a malignant action or not. In favor of this possibility was the bad smell, but this might well be due to necrosis owing to the pressure to which it had been almost constantly subjected, and also the cachectic appearance of the woman, but this I have seen so frequently present in other cases that I have ceased to attach so much importance to it. It is due to a mixture of anæmia which makes the skin white and waxy, and of disorder of the liver and bowels and suprarenal capsules, which makes the skin dark and yellow. I have usually found the colour recover itself completely within a year after the removal of the tumour. In this case there was also, probably, a little mild sepsis going on owing to gangrene of the mass. Against the probability of cancer was the fact that the symptoms had lasted at least 12 years, and though cancer of the fundus kills

much more slowly than cancer of the cervix, 2 years is generally considered to be as long a time as the patient can survive the onset of the disease.

Prognosis was good, provided the tumour was removed without delay. The patient was in such a bad condition, however, that total hysterectomy would have been a serious proceeding, and I was, therefore, glad that I could feel justified in simply removing the tumour, and curetting and disinfecting the cavity.

Treatment.—There was no excuse for delaying 12 years, during most of which time the patient was under medical treatment with the above results. Her family physician was a man of large experience and very prominent, but he does not believe in special doctors for women, and no doubt he believed he was doing the right thing to let this woman gradually melt away under morphine for the pains, ergot for the hemorrhage and iron for the anæmia. But she had practically lost 12 years of her life, during which she might have been well and strong instead of being a chronic invalid. Two days after my first seeing her she entered a private room at the Samaritan Hospital, 1000 Dorchester street, and, after two days more of preparation, the polypus was removed with some difficulty, owing to the wideness of the base, by means of a cold steel wire and ecraseur. It was at once sent for microscopical examination to the acting pathologist (Dr. MacPhail, the pathologist being away), and, should his report show the slightest evidence of cancer, I will as soon as the patient's condition has improved sufficiently, perform abdominal hysterectomy. In the meantime the uterus was carefully and thoroughly curetted and swabbed out with pure carbolic acid followed by hot water, after which it could be felt to contract down to a size of a lemon. The cavity was then packed with iodoform gauze, which was left in two days. The result has been most satisfactory; the patient did not vomit once; had no pain and no morphine since, and has slept nine or ten hours every night, as she says, to make up for the nine or ten years during which she never had a full night's rest. Her

appetite is good, and she has not had a drop of hæmorrhage and only a little whites since the tumour was removed. Dr. Hall reports that there was no sign of cancer or sarcoma about the specimen submitted to him, so that there is every prospect of this poor woman having 10 or 15 years of health before she dies.

*Remarks :—*Although this was only a case of uterine polypus, it is of interest from many points of view. First, the frequency of this condition. Judging from the number that I have seen, there must be a great many women in Canada dragging out a miserable existence, who might be well and happy if their condition were recognized and treated properly. Of course, some of them do not consult a doctor, and for these we are not to blame ; but, in those who do, we have only to give a mild purgative, loosen the clothing and put the patient on the table, when with one hand on the abdomen and one or two fingers of the other in the vagina, we can at once detect the enlargement of the uterus. If our fingers and the sound have been sterilized, we can ascertain that the sound, or if this will not pass, then a stiff bougie will enter five, six or seven inches into the uterus. With such symptoms as this woman had, and these signs, no time should be lost in having the polypus removed, or if the tumour is still in the wall of the uterus and the woman over forty, in having hysterotomy performed, the mortality being *nil* in the one operation, and less than five per cent. in the other. To those who do not consider a fibroid tumour or a polypus of any importance, I would say again as I have often said before, that these benign growths are not so innocent as they seem. Quite a number of these patients become so anæmic that they acquire a heart murmur, not only due to the watery blood, but also organic, due to the degeneration of the heart muscle and dilatation of the ventricles, so that the valves closing the auriculo ventricular openings do not come together. Although this calls for care in the choice of an anæsthetist as well as an anæsthetic (I feel safe with the A. C. E. mixture), it is no barrier to operation, as both murmurs entirely disappear in a few

months afterwards, owing to the stopping of the loss of blood. In other cases the kidneys degenerate and albumen appears in the urine ; but I no longer allow this to deter me, as I have operated on more than a dozen cases where operation had been advised against for this reason, not one of which died from this or any other cause within a month of the operation.

I now come to a matter, the importance of which is not generally recognized, and that is the preparation of the patient. Many of the doctors who are kind enough to send or bring me patients for the first time, are surprised and sometimes annoyed because I ask them to allow me two days to prepare the patient ; but all those who see a great many operative cases, and especially the nurses who take care of them, know that there is no comparison in the after-misery between those who are in the hospital two or three nights and those who are there only the night before or the morning of the operation. This is especially noticeable in the absence of vomiting, which is sometimes so distressing in those whose bowels and stomach have not been emptied by dieting and cathartics. Some patients are given a kindly-meant send-off by their friends, which takes the form of a feast of their favourite pie and cake and pickles ; and they vomit them promptly after the operation, much to their own and the other patients' discomfort. In conclusion, I would say, examine every patient with hemorrhages, under A.C.E. if necessary, and do not dismiss her until you *know* the cause ; and, if this is remediable, remove it at once or have it removed.

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Selected Articles.

THE DEADLY NURSING BOTTLE.

The filthy nursing bottle might well be used to illustrate the epitaph of many luckless infants. All seasons of the year claim victims, but the late summer and early fall months seem to yield greater devastation from this cause. All physicians and most mothers know that the nursing bottle should be kept clean ; but few physicians and fewer mothers understand how to completely cleanse the bottle. It is unnecessary to state that the tube should never be used. The entire appliance should consist of a bottle and nipple. The difficulty in getting nipples large enough at the base to go over the neck of a wide mouthed bottle and yet have a tip small enough for the child's mouth, is generally the cause of the use of a bottle with a neck too small to permit of the introduction of either the fingers or the brush. Yet even such a bottle may be kept clean. We would advise every mother or nurse who has charge of a bottle-fed infant to commit the following directions : As soon as the infant is through nursing, remove the nipple from the bottle and drop it in a glass of saturated solution of boric acid in water. Empty the bottle completely, and fill with pure boiled water. It is well to have four nipples and two to six bottles. Once each day, cut a raw potato into squares about an eighth of an inch in size and place a few teaspoonfuls in each bottle and fill bottle half full of water and immediately shake thoroughly for several minutes ; if necessary, this may be repeated, but the potato should be used but the once and only in the one bottle. After the potato washing, rinse the bottles with boiled water, and place them in boiled water till ready for use. When the child is ready to nurse, take the nipple from the boracic acid solution and rinse in boiled water, empty a bottle of water and at once fill with milk. It takes hardly as long to do the work as it does to tell about it, and no brushes or soap powders are needed. The plan is entirely satisfactory and absolutely safe. The rubber nipples sometimes take on a slightly greenish tint from their prolonged and repeated baths, but it in no way impairs them. If bottles are found in a filthy condition, we do not destroy them but place a spoonful of medium sized bird shot in the bottle in a solution of some of the soap or washing powders, and, after shaking vigorously for a few moments,

empty and rinse the bottle and follow with the potato rinsing. We immediately destroy every rubber nursing tube on which we can get our hands, for cleansing them, much less sterilizing them, is entirely out of the question. With the plan given, no strong, offensive or dangerous antiseptics are used; yet no child will ever have trouble from either bottle or nipple. We have used it with success for years, and have never had cause to change. We have seen one of our professional friends use rice in lieu of shot or the potato, and, he assured us, with perfect results.—*Medical World*.

HEADACHE.

The grimly humourous doctor who defined woman as "a constipated biped, with a pain in her side" might well have added "and a headache." This distressing affection is almost universal among female kind, and few of the sterner sex are entirely exempt from occasional attacks. If the personal and hygienic habits of our patients are not all that they should be, it is equally certain that our diagnoses and therapy are far from being satisfactory. The trouble with our diagnosis is that we fail to complete it. The patient comes to us with the headache, and we suspect stomach or bowels, give a purge and a stomachic and some kind of coal tar dose, and comfort ourselves in the assurance that the patient will be *relieved*. But nothing has been done in investigating the actual cause of the headache, unless the bowels or stomach have been the offending organs. This is the kind of treatment which has made fat the bank accounts of the patent medicine firms. The 10-cent headache packages of powders sold at the corner drug store do all for the patient that our 50-cent or dollar prescription does; when the patient learns this fact, we have not only lost them on headaches, but they will also try the druggist in any other complaint before consulting us.

We should treat minor complaints, such as headache, as carefully as we would treat a compound fracture of the limb. When the time comes that we do not have time to do so, then the time has come to raise our fees and cull our practise, or abandon general practise and enter a specialty. So long as you practise general medicine, you are bound by all the ancient precepts of honour and duty to do the very best possible for all those whom you undertake to treat. We know of no symptom found in so many diseases which is so ignored and misinterpreted as a headache. No head ever

ached without a cause, and the cause is just as apt to be, and just as often is, far removed from the effects of a functionally inactive alimentary canal. The general practitioner is no greater sinner in this respect than is the specialist; the general practitioner assigns the headache to some cause; the specialist assigns it to some organ in his own specialty. In the majority of cases both may show some cause why such a course might be rational, and in the majority of cases neither has made a diagnosis sufficient to prop the assertion.

It is a fact that many a diagnosis of some obscure and complicated trouble is made more easily and accurately than is the proper diagnosis of cephalgia. Surely it is worth the time required for a thorough diagnosis; the periodical repetition unfits the victim for any kind of business or social duties; it may be the warning signal of the onset of some grave or fatal disorder; it is puzzling and, therefore, interesting, to the true medical man; just tackle a few obstinate cases honestly and see if your best brain power and diagnostic skill is not fully taxed. It is essential that the patient be taught something of the nature of the case. In his innocence he comes to you for "something for the headache," and he hopes that you may give him something that will banish that headache forever. Your better knowledge teaches you that this is impossible unless the permanent cause be removed. He knows nothing of causation; it is pain from which he seeks temporary relief, without thought of the future. He seeks a magic cure from the ingestion of a draught. It is best to explain to him the obscurity of diagnosis; to take the time to find the foundation cause, and to charge him for it.

The ordinary headache is due to some reflex irritation, or to some unbalancing of the equilibrium of the cerebral circulation; more grave and persistent forms take their origin in organic disease, or in a depraved condition of the blood, or in intracranial pressure from tumour or exudate. If the stomach fail to act properly, we may have a headache from reflex gastric irritation, augmented by the disturbed cerebral circulation consequent upon impaired nervous control.

The classification used by Stevens is, perhaps, one of the best of tabulations. It is as follows:

(1) Organic headache, as observed in meningitis, cerebral softening, abscess, brain tumour, etc., may be recognized by its persistent character and the associated symptoms of the primary disease, such as optic neuritis, mental aberration,

facial paralysis, and vomiting without discoverable cause. Under this heading he includes the syphilitic headache ; diagnosed by the history, the leutic lesions, the somnolent character, and the magic effect of potassium iodide.

(2) The headache of cerebral hyperemia: (a) Active cerebral congestion occurs after prolonged mental exertion, undue exposure to heat, and as the result of high fever. Toxic and reflex headaches are often in themselves the direct sequence of active cerebral congestion. (b) Passive cerebral congestion: This follows mechanical disturbance of the circulation, as from the pressure of a tumour or the result of heart disease. In old people, it may result from inelasticity of the vessel walls, thus interfering with the momentum of the blood current, or by too easy dilatibility hindering the muscular action which accelerates the flow. When the head aches because of cerebral congestion, the pain is throbbing or "bursting" in character, the head feels hot, the face is flushed, and the conjunctiva are injected. Raising the head relieves, and lowering the head aggravates the pain. It is necessary, in searching for the exciting cause, to examine, not alone the heart, but also the kidneys, liver and other organs. In diametrical opposition to the foregoing, we find the next class.

(3) Headache of cerebral anemia: This may depend upon general anemia, or be found as a sequel of various excess; it is observed in aortic stenosis, in neurasthenia and after protracted emotional excitement. The pain is not throbbing, but is described as a "weight or pressure." It is often verticle in character and the face is pale; the spirits and mental action are depressed instead of irritable, and lowering of the head is paliative.

(4) Reflex headache: This is most frequently the result of eye-strain. It is worse across the brow or forehead, and is often accompanied by vomiting, restlessness and insomnia; it is aggravated by use of the eyes and relieved by darkness and quietude. Correct errors of refraction. (b) Pelvic diseases will produce an obstinate reflex headache in the female. The vertex is the seat of pain, and pressure will relieve it temporarily. (c) Gastric irritability is often responsible for this variety. Vomiting will relieve and a brisk purge is curative for the time. Search for evidence of stomachic disorder. (d) Nasal catarrh will cause such a headache referred to forehead, temples or vertex. The eye-ball and inner orbital wall are excessively sensitive to pressure, and artificial irritation of the nasal chambers at once aggravates the head symptoms.

(5) Toxemic headaches may be of uremic origin ; examine for increased arterial tension and albumin or casts in the urine. (b) The lithemic or gouty diathesis is often proclaimed by an obstinate headache associated with irritability of temper, brick-dust deposits and dizziness. (c) The headache of chronic malarial poisoning is generally supra-orbital, recurring at regular intervals and easily controlled by suitable quinine therapy. (d) The rheumatic headache comes on after exposure or changeable barometric conditions ; the scalp is tender, and the pain augmented by jaw motion or frowning. (e) Alcoholism often induces cephalgia. In the acute form it is due to cerebral hyperemia ; in the chronic variety it is generally presumed to be the result of a subacute meningitis. (f) The auto-intoxications following constipation, fever and diabetes are to be included here, as are also such toxemias as come from absorption of unrespirable gases, ingestion of lead, etc.

(6) Hysterical headache : This variety is worse at the menstrual period in the female (males also have hysterical headaches), and is forgotten under influence of pleasurable emotions. It may be described as localized or general, " nail being driven into the head," etc.

We consider this classification as that of a master-hand seeking to lead the groping pilgrim to light under many and diverse conditions and environment. Indeed, his whole book does that (Manual of Practice of Medicine, W. B. Saunders, Philadelphia, 1898), yet it is not a complete guide for the lazy or ignorant man ; work is the first essential, and while a thorough medical education is desirable, any hard working man may well grapple with any headache and come out triumphant. This book will aid him, as will many others ; but there was never a star gemmed in any crown of medical fame which did not stand for sweat and weariness and disdainment of rest.

When the task seems too hard for you, better get out at once ; it will be better for you and full as well for your patients. If you are going to be a really good doctor, you must work like a slave and live like a soldier in a hard campaign. Neither extirpation of the stomach nor Cæsarean section wail half the lament in the medical ear which the agony of headache voices. If you entered the profession dreaming of barbarian peacock plumes and fabulous fees for mediocre work and skill, you are bound to be disappointed. If you have a million to back you, you may retain your title, however won ; but you will never be a doctor, in the full

meaning of the term, till you *work*. But we have wondered ; perhaps because we appreciate the difficulties of a rational diagnosis of some obscure headache. We realize that the patient who has been unfitted for work for years, and who may, perhaps, have tried other doctors in abundance, hopes that you may aid him ; yet we also realize your impotence until weary mountains of study have been scaled. We reiterate that headaches cause more aggregate pain and misery than those affections which lead to capital operations. Our sympathy is with the ranks of the general profession who meet the brunt of the severest trials. They meet them too poorly equipped, maybe ; but that is their fault. We seek to spur them to a higher plane of usefulness. Let them equip themselves in knowledge and armamentarium until they shall be the peer of any doctor living ; then they will have the consciousness of deserving the benediction : " Well done." And their patience will be fortunate.

Perhaps we have transgressed good editorial taste in our moralizing, but humanity will reap the benefit. If every reader but do his part, the added blessings to the race will satisfy us, however severe the condemnation from thoughtless and unthinking practitioners.

Little need be said on treatment ; at least until we no longer are compelled to guess and dream at pathology. It is sufficient to meet the indications rationally if we but thoroughly understand them. It will be understood that headache is not *inigraine* ; of this we may speak later. Now we only hope to help humanity, without danger either from malpractice or from the *nostrum vendor*. Search out the primary cause of every headache, and rectify or treat it. Careful investigation will place it under some of the above various headings, and close study will bring the diagnosis yet nearer exactness. If it be in consequence of reflex irritation, organic disease, cerebral hyperemia or anemia, toxemia, or simple nervousness, we have confidence in the American practitioner who may grapple with it. He needs both skill and staying power in most cases ; yet " if he wins, he wins a pile," and it is well worth trying. If you can banish the headaches from your ordinary every-day practice, you will win both fame and competence. Satisfactory results do not lie within the possibilities of any drug or combination of drugs. It is essential that every individual case be met personally and studied well. In the attacks it may be necessary to give some drug for temporary relief, but this is always to be followed in the intervals by a thorough search for the

basic cause. Correct eye strain by suitable glasses. Treat any existing gastric catarrh, by bismuth, soda, and silver nitrate. If there be anemia, tone up the blood with iron, arsenic, strychnine, etc. Examine the urine for evidence of uremia. If malaria be suspected, push the quinine. A hot mustard foot-bath will relieve cerebral congestion promptly, especially if an ice bag be placed to the head; aconite and the bromides come into good play here. Caffeine does much good in cerebral anemia. Salol is excellent for headaches of rheumatic origin. If kidneys be found inefficient, restrict patient to a milk diet and promote diuresis and maintain free action of skin and bowels.

Get out of the old routine of treating the symptom and get in line of rational treatment by an accurate diagnosis.
Medical World.

THE TREATMENT OF ECZEMA.

There is a popular medical belief that arsenic is one of the best of drugs in all skin diseases, and particularly so in eczema. This belief is not founded on facts, and is certainly not borne out by experience. Instead of being indicated, arsenic is most strongly contraindicated in the majority of cases. Iron often but adds fuel to the flame. In fact, it is much better for the practitioner to appreciate that he is dealing, in many cases, with a strictly local disease, and that no internal medication is needed.

Often the systemic conditions are not all that they should be, and the practitioner jumps at the conclusion that this is the cause of the local affection. In many cases local treatment would relieve and cure the trouble. The system should be brought up to par, but the local treatment is by far the most important in most cases. It is advisable to maintain all the enuncatories in full functional activity and to see that the body is properly clothed. Diet is important, and stimulants must be rigidly interdicted. Irritation of any kind must be guarded against, and soothing or protective applications employed after the indicated remedies have been employed.

The crusts are best removed by applications of weak solutions of soda bicarbonate, or of any bland oil or glycerine. Water is to be avoided as much as may be possible; even in bathing it is well to keep the affected areas dry. Reasonable cleanliness may be maintained for a time by sponging the affected part with warm glycerine. If it be the hands

that are affected, the rubber tissue gloves now for sale at all instrument dealers will frequently cure inveterate cases, if worn constantly, without either local application or internal medication. In those varieties due to microbic or parasitic infection, it is highly important to choose an antiseptic which will not be in the least degree irritating. Weak boracic acid solutions probably meet this indication as well as any other agent. To relieve inflammation, and to serve as a protective to exclude the air, the "creams" are most useful. One of the best is as follows :

R Oxide of zinc.....	6 drams
Lanolin.....	2 drams
Olive oil.....	8 drams
Prepared calamine.....	3 drams
Lime water.....	8 drams

Make a mixture. Apply freely and frequently.

It is occasionally necessary to keep the affected parts constantly covered with the medicating agent. This may be accomplished in the case of facial eczema in children by making a chamois skin mask with tapes to fasten in place about the head and neck; the medicament being made in the form of a stiff paste and spread on the inner side of the mask. The ointment of Lassar may be so used, but it is improved by the addition of a little resorcin, oil of cade, ichthyol, or tar. It is prepared as follows :

R Salicylic acid.....	10 grains
Vaseline.....	4 drams
Oxide of zinc.....	2 drams
Pulverized starch.....	2 drams

In locations unsuited to the constant wearing of mask or bandage, one may make a jelly from starch and incorporate in it the indicated medicament. Such an application is spread thickly over the affected parts; it has, of course, the objection that it is easily removed by any motion or rubbing of clothing.

Some cases will be found in which fat, oil, or grease of any kind, irritates and causes the diseased area to spread. In such a case, one may often use the following with marked advantage :

R Pulverized calamine.....	3 drams
Oxide of zinc.....	2 drams
Glycerine.....	3 drams
Lime water enough to make.....	4 ounces

Mix. Shake well before applying and apply frequently.

A combination of sulphur and zinc ointment is often beneficial where fats are tolerated. One may begin with ten grains of sulphur to the ounce of zinc ointment, and increase the amount of sulphur as he finds the diseased area will allow. Such an application is best spread on paper and held in place by a bandage; waxed paper is preferable, and the ointment is spread generously.

Carbolic acid is a valuable remedy in chronic cases. It is applied in the proportion of one dram to eight ounces of equal parts of glycerine and water. A weak solution of silver nitrate (XX grains to the ounce) in sweet spirit of nitre, is often serviceable in such cases. Chrysarobin in good strength is one of the best applications in the chronic form, but the patient must be warned that it will stain the clothing and may produce temporary pain and hyperemia. It is used in strengths varying from ten to forty grains to the ounce of ointment.

In cases where long standing eczema has caused hypertrophy of the tissues, persistent massage will prove beneficial. In the varicose veins which so often complicate chronic eczema of the leg, the elastic stocking cannot be dispensed with.

Probably no other disease requires so careful symptomatic treatment and such fine diagnostic power. In the acute form, avoid irritation. In the chronic form, repair the damage, even if temporary irritation be induced. We have not seen formaldehyde mentioned in connection with eczema, but it should prove valuable in parasitic forms, and we shall try it on our next case.—*Med. World.*

Progress of Medical Science.

MEDICINE AND NEUROLOGY

IN CHARGE OF

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CRAMPS OF THE LEGS.

Dr. John McDonald, after discussing the causation of cramps, their relation to the valveless condition of the inferior vena cava, and consequent great hydraulic pressure, to constipation with its pressure on the iliac veins, and to

the gouty diathesis leading to the deposit of urates in the muscles surrounding the congested veins of the legs, says that in the remedial treatment of cramps the attention should be directed mainly toward (1) the relief of constipation, (2) the removal of the uric acid toxine, and (3) the establishment of a better nutrition.

It is obvious that for this purpose an effective cholagogue agent is of the first importance to stimulate cellular action of the liver, increase its normal secretions and initiate peristalsis, and that, combined with an appropriate uric acid solvent, the circulation of the blood may be quickened, while at the same time its subalkalinity may be neutralized and oxidation increased by the removal of the toxine mainly responsible for the abnormal condition.

A more active interchange having thus been established between blood and tissue, the former better enabled to perform its function of removing poisonous waste, the nutrition of the latter becomes improved, and the third indication is fulfilled. The author records a case of obstinate cramps treated successfully on these lines.—*Northwestern Lancet*.

THE PLACE OF CEREALS IN INFANT FEEDING.

H. D. Chapin, New York, states that to break up the curd of cow's milk and furnish a small quantity of easily absorbable food, cereal gruels, in which the starch has been converted into dextrin and maltose, are the most practical and desirable agents. It has been admitted that cereals give the finest curds of any diluent. How much effect a digested gruel has on the curding of milk depends on the strength of the gruel and the dilution of the milk. The very best effect, so far as digestive effort is concerned, is obtained when the starch is completely gotten into soluble forms so that the particles of proteids and cellulose of the cereals are free. The curd of cow's milk which has been diluted with thoroughly digested gruel shrinks away from each little particle of cellulose and proteid of the cereal, and allows a rapid exudation of the soluble, easily absorbable portion of the food, consisting of albumin, globulin, whey proteid, dextrin, maltose and milk sugar. The curds are soft and spongy and break apart on slight agitation. It is not necessary to use a digested gruel stronger than one heaping tablespoonful of flour to the pint for any dilution of milk. If, when modified milk disagreed, all milk was cut off for a few feedings

and then a new beginning made, a great deal less trouble would be experienced than by attempting to shift percentages slightly. There is no form of nourishment so easily borne as predigested cereal gruels, and when properly used these are of great benefit even when the infant is breast-fed. After a reference to the standard text-books and recent articles, the conclusions are reached that chemical analyses of milk are not the only scientific bases of comparison, that nature adapts an animal's milk food to its digestive system, and that cow's milk and woman's milk were intended for different digestive systems; that as cow's milk forms solid curds and woman's milk flocculent curds, the curd of cow's milk intended for an infant should be broken up mechanically; that as cereal gruels mechanically break up the curds of cow's milk, and as infants are able to utilize them, their use is rational. A great variety of food can be supplied an infant by means of digested gruels at a trifling expense, and the tendency is always to get back to milk feedings and not to keep on indefinitely with a diet of carbohydrates, as when most infant foods are used.—*New York Medical Record*.

DIABETES MELLITUS—ITS ETIOLOGY AND TREATMENT.

DR. ADRIAN D. WILLIAMS (Dietetic & Hygienic Gazette, 1901, XVII, 165) reports the following case:

Nellie L., aged 16. This case is particularly interesting because of the youth of the patient. First seen October 3, presenting the usual symptoms of diabetes. Had an insatiable appetite, and her mother stated that the amount of water she drank was "simply enormous." An attempt to restrict this resulted in her resorting to various devices to obtain water surreptitiously. Symptoms had been present since last spring; patient much run down, skin dry and harsh, suffered from constipation and severe headache. Examination showed sp. grav. of urine, 1036; glucose, 5 per cent.; she passed daily 30 pints of urine. Placed patient on a rigid diet, and carbohydrates were strictly interdicted. As in other cases, patient was given careful instructions regarding hygiene, exercise, frequent bathing, cold spinal douches and Turkish baths. Arsenauro was prescribed, beginning with 10 drops in one-half goblet of water, three times daily; instructions given to gradually increase the dose.

Contrary to expectation, patient took kindly to restricted diet; hygienic measures recommended were carried out faithfully. The patient was seen twice each week; an examination of the urine made each time. For two weeks no great change occurred, although the girl said she felt much better. Hunger, thirst and polyuria reduced. On October 21, however, the percentage of sugar had fallen to a trifle less than 3 per cent., quantity of urine remarkably lessened, patient taking her treatment faithfully, dose of arsenauro having reached 28 drops three times a day. From this time there was a steady decrease in the quantity of urine and of sugar. There was a marked improvement in the general condition of the patient. November 4 glucose is absent for the first time. Weight of patient increased from 92 pounds (when first seen) to 100 pounds; skin softer, is healthier looking, bowels acting well, headache had ceased, still passing abnormal quantity of urine, yet much less than two weeks previously. Patient taking 40 drops arsenauro t. i. d., no physiological symptoms had developed, and as patient was steadily improving, she was instructed to continue at that dosage. November 10 small quantity of sugar was detected, although the patient's condition was steadily improving. Next examination no sugar was found, and he allowed the patient a limited amount of carbohydrates—a change she welcomed. Since that time no sugar has been found. The weight of the patient, now on a more liberal diet, is 108 pounds; is feeling in good physical condition, parents stating that the change in her disposition is most marked. Her appetite continues a trifle greater than that of most girls of her age, but the excessive thirst and polyuria have ceased.

TREATMENT OF INFLUENZA.

According to W. H. Thomson (*New York Medical Journal*, Jan. 26), the present epidemic of grip is milder than when the disease first made its appearance in 1889-90. He attributes this amelioration to a relative immunity acquired from previous attacks. Aconite, in the writer's experience, is the best remedy for the general aching which characterize the onset of many febrile infections. Its action is promoted by the addition of a small dose of Dover's powder. Phenacetin is also very serviceable as an analgesic. The writer is accustomed to prescribe throughout the febrile period of influenza two pills, three times daily, each containing $1\frac{1}{2}$

grains solid extract of aconite, $\frac{1}{2}$ grain Dover's powder, 2 grains phenacetin and $1\frac{1}{2}$ grains of quinine. As the temperature declines the dose is reduced by one pill a day until all catarrhal symptoms have subsided.

In cases where there is a sudden shifting of the trouble from the nasal passages to the trachea and back again, a pill of $\frac{1}{4}$ grain extract of belladonna, with a grain or two of camphor, seems to afford relief. Flushing the throat by means of a fountain or Davidson's syringe with a quart of hot water, containing in solution 2 teaspoonfuls of potassium chlorate and 5 drops of oil of peppermint, is also helpful. For the periodic excruciating supraorbital pains, with photophobia the fluid extract of ergot in dram doses, every three hours if necessary, is specific. It is better borne by the stomach when combined with a dram of elixir of cinchona. Ergot also often assuages post-influenzal pains in the thorax, abdomen, sacrum or pelvis after morphine and quinine have failed.

The markedly paroxysmal, dry, nervous cough, sometimes persisting for weeks after other symptoms have subsided, and apt to be especially troublesome at night, generally yields to doses of twenty grains of ammonium bromide with 10 of antipyrin. For intercurrent bronchitis, especially serious in this disease and allied in nature to the mechanical phenomena of occlusion, the best remedy to liquefy the viscid bronchial secretions is an emulsion of linseed oil, to each dose of which 1-12 grain morphine and 8 grains chloral may be added to overcome the nervous element. Adjuvants not to be neglected are repeated, thorough dry cuppings of the chest, back and front, followed by the application of large cloths wet with an infusion of capsicum, made with a dram to the point of boiling water. A favorite liniment for cutaneous stimulation consists of one part each of aqua ammoniac, turpentine and tincture of capsicum, with three parts of soap liniment. For the tedious debility following influenza the author relies mainly on fluid extract of cocoa with nuxvomica. It is important to impress upon the patient the necessity of staying in bed until he is well, no matter how mild the attack may appear at first to be.

DR. ANDREW H. SMITH said that he had just come from the bedside of a young man suffering from grippe, and had been impressed with a novel symptom—retention of urine. The patient was a healthy young man, and there seemed to be no obvious reason for the retention. With regard to the treatment of periodical neuralgia by ergot, which Dr. Thom-

son thought so highly of, he said that he was reminded of his experience some years ago with the caisson disease, and its most troublesome and obstinate neuralgia. In the latter nothing had given such prompt and marked relief as full doses of ergot. The annoying and persistent cough, so commonly observed after the grippe, had seemed to him to have its seat just at the bifurcation of the trachea. In the few instances in which he had been able to get a view of the bifurcation with the laryngoscope he had found a velvety condition of the mucous membrane at this point. An irritation started here would naturally be intensified by the fact that the impact of the air at every inspiration was received upon this wedge of tissue. He had succeeded best in relieving this annoying irritative cough by the administration of malto-*yerb*ine. Sometimes it was desirable to give the fluid extract of *yerba santa* in some other vehicle. The vagueness of our knowledge concerning the pathology of grippe made it difficult to lay down any definite rules for its treatment. The great depression resulting from an attack of influenza left the system in a condition peculiarly favorable for an attack of pneumococcus infection, and this explained the tendency to pneumonia. The physician should constantly impress upon his patients, suffering from grippe, the necessity for respecting the languor which they felt. *Proceedings*, N. Y. Academy of Medicine, Jan. 15, 1901.

CHOREA AND RHEUMATISM.

"Chorea is rheumatism of the brain, and I feel as certain of that as I do of anything in Medicine." These are the words used by Sir Dyce Duckworth in addressing his students at St. Bartholomew's Hospital a short time since, and in support of his view he was able to add that the recent researches of Drs. Poynton and Payne have rendered his conception as nearly certain and positive by way of demonstration as anything can well be. These two observers have succeeded in inducing chorea in the rabbit by the inoculation of the diplococci of rheumatism, and they have detected these diplococci in the endothelial cells and capillaries of the brain. They found them not only there, but dipping into the motor centres of the rabbit's brain. That is almost as complete and perfect a demonstration of the nature of the disease as could be wished for, but Sir Dyce Duckworth was singularly fortunate in being able to quote an extremely interesting case of fatal chorea in the human subject, in which

Drs. Poynton and Payne discovered these rheumatic organisms in the mitral valve and also in the motor cortex of the brain. The very natural conclusion these gentlemen have drawn is that chorea is induced by the presence of these diplococci or of the toxins which they produce in the brain. It would be difficult to describe the modern view of the morbid anatomy of chorea more concisely and clearly than Sir Dyce Duckworth, who says that so far as it has been studied it shows nothing incompatible with the theory that it is an inflammatory process depending on microbic invasion, and the symptoms of the disease appear to indicate that the changes are caused by multiple local lesions due to the deposition of a particular form of disease rather than to any diffuse toxæmia. Believing that the determination of this process to the brain will only occur in persons particularly and specifically predisposed to brain weakness, we naturally come to regard it as rheumatism localised in that organ.—*Medical Press and Circular*.

TREATMENT OF ECLAMPSIA.

A most interesting paper by Stroganoff (*Monatschr. f. Gebish. u. Gyn.*, October 6, 1900) seems to be apt to overturn the routine treatment of eclampsia with chloroform narcosis. On theoretical reflections he concluded that the two main principles for a proper and judicious treatment of eclampsia ought to be the following :

1. In order to prevent new convulsions, the irritability of the nervous system has to be reduced and every external irritation has to be avoided.

2. The vital energies of the patient have to be aided by inciting the action of heart and lungs, and by accelerating confinement.

Acting in accord with these principals, he employed in all his cases of eclampsia the following procedure :

As soon as possible after the first convulsion he gives a subcutaneous injection of one-fourth of a grain morph. mur., and continues to give narcotics during the next twenty-four to forty-eight hours.

The same dose of morphine is repeated in one or two hours, according to the condition of the patient. In very severe cases a third injection may be given, one and one-half hours later. Two or three hours after this third dose of morphine (in milder cases after the second) the patient gets thirty to forty grains of chloral-hydrate per rec-

tum, and is kept now under influence of narcotics, by getting twenty to forty grains of chloral-hydrate every six to ten hours. Should she show symptoms of an approaching fit, one sixth to one-fourth of a grain of morphine is injected. This combined use of morphine and chloral hydrate gives better results than the exclusive use of either one.

In order to ease the respiration, inhalation of pure oxygen is used (instead of the usual inhalation of chloroform, which, according to the views of Stroganoff, does considerable harm by asphyxiating the patient!). The patient is in a well-ventilated room. Nose and mouth are continually and carefully cleaned from mucus. Every external irritation, every superfluous touching of the patient, noise, dazzling-light, etc., have to be avoided.

The action of the heart is incited by giving, besides milk for nourishment, a mild tea infusion. If the kidneys are not considerably affected some brandy is added. Tinct. moschi, ether sulf., etc., may be used.

Repeated baths, or wrapping of the patient in order to excite perspiration, do more harm than good, as these procedures, both, are too irritating, and obstruct the breathing.

Are any manipulations with the patient unavoidable—for instance, at operative delivery, a. s. f.—chloroform has to be given to prevent new convulsions brought on through these irritations. But chloroform narcosis has to be limited to the shortest time possible.

The results attained by Stroganoff with this scheme of treatment have fully justified his theoretical presumptions. Out of fifty-eight cases of eclampsia which came under his care, and in which his method was applied, *none* died. This result ought to be convincing, as statistics published by many authors, show that the maternal mortality in eclampsia so far was between twenty-two and thirty-nine, four per cent. (Hofmeister).—*Interstate Medical Journal*.

FAVOURITE PRESCRIPTIONS.

INTERMITTENT NEURALGIA—FACIAL NEURALGIA.

℞ Fl. ext. gelsemium (P., D. & Co.)..... gtt. lxiv
 Quinine sulph..... ʒ ss
 Morphine sulph..... gr. 1
 Water..... ʒ iv

M. Sig.—Begin four to six hours before onset of paroxysmal pain in malarial neuralgia and give one teaspoonful

of the above formula every two hours until eight doses are taken, or until the characteristic effects of the gelsemium result in double vision, then cease taking for that day and repeat daily in the same way. Usually the attack ceases on the second or third day.—*Med. Summary.*

BISMUTH SUBGALLATE IN GONORRHEA.

Dr. Dokerchaieff states that he has had brilliant results from the use of bismuth subgallate in both acute and chronic cases. In acute cases he first washes out the urethra with a boric acid solution or a two per cent. solution of potassium permanganate. Then he injects the following :—

R Bismuthi subgallati.....
Pulveris acaciæ.....aa ʒij
Aquæ destil..... ʒiij

M. Sig.—Use as an injection every two hours and retain the liquid each time for five minutes, and allow it to escape drop by drop.

In chronic cases the urethra is well irrigated, and a bougie made up as follows is introduced :—

R Bismuthi subgallati..... gr. xx
Wool fat..... ʒiiss
Ceræ albæ (white wax)..... ʒss

M. Sig.—Insert and lightly massage the penis to bring the mucous membrane in contact with the bougie.—*J. A. M. A.*

FOR PREMENSTRUAL PAIN.

R Codein ¾ grain
Chloral
Ammonium bromide.....aa 15 grains
Camphorated water..... I ounce

M. To be taken in one dose at bed-time.—*N. Y. Med. Jour.*

ASTHMA.

A good combination for general use internally is the following, according to Jackson :—

R Sodium iodide.....
Sodium bromide.....aa gr. ij
Fl. ext. euphorb, pil.....
Ethereal tinct. lobelia.....aa gtt. iij
Nitroglycerin..... gr. $\frac{1}{100}$

M. Sig.—Take at one dose, and repeat in half an hour, if needful.—*Med. Record.*

SURGERY.

IN CHARGE OF

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AND

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AFTER-TREATMENT OF PERITONEAL SECTION.

Henry T. Byford (*Amer. Gyn. and Obst. Jour.*) gives his method of inducing peristaltic action as soon as possible after peritoneal section, for the purpose of preventing intestinal paralysis and adhesions. His success prompted him to use it in simple as well as complicated cases, in order to make the patient more comfortable and to render the convalescence more rapid. This method consists of four drams of fluid extract of cascara or some equivalent, two hours before the time set for operation, dram doses of sulphate of magnesia every hour from the time the patient awakes after the operation, and a high glycerine and water enema (ʒii to ʒiv) every two hours, beginning eight hours after. A high glycerine enema was given before the patient left the table after operations in which adhesions were separated and raw surfaces left. A prompt movement of the bowels and a free passage of flatus not infrequently resulted from this enema before the others were given, and hence he began giving it as a routine practice in order to save, as far as possible, the trouble connected with giving a nauseated patient the salines and later enemas. The treatment must, as a rule, not be discontinued until the patient passes flatus, not only with the enemas, but also freely between enemas, *i. e.*, efficient peristaltic action should continue at intervals. After the first day means must be taken to maintain frequent peristalsis and a daily evacuation of the bowels. To this end two drams of sulphate of magnesia or two or three ounces of Hunyadi water are given night and morning for two weeks, the dose being regulated according to the effect. The treatment may be modified somewhat to suit different cases. If a patient be in need of a stimulant, usually an ounce of whisky is added to the enema administered on the operating-table, giving what in the Woman's Hospital is called the one, two, three enema, *viz.*, one ounce of whisky, two of glycerine, and three of water. In patients who have lost much blood a large, high beef-tea enema is given instead, and repeated every four hours.—*Pacific Med. Journal.*

THE PRESENT STATUS OF THE SURGICAL TREATMENT OF GASTRIC ULCER.

In the twenty years, ending six months ago, only 188 cases of gastric ulcer had been treated surgically, with a mortality of 16.4 per cent. During the past six months the author believes that double that number have been treated by operation, and with markedly decreased mortality.

Robson's record shows a mortality of less than 5 per cent. The surgical treatment of intractible or relapsing gastric ulcer is in the greater number of cases the only satisfactory method, and operation should be resorted to at a much earlier period than has hitherto been the custom, and always before the patients are so reduced by pain and starvation, or the supervision of serious complications, that their weakened condition renders any operation dangerous.

Gastro-enterostomy, of all operations, is the one to be relied on in the treatment of chronic ulcer. The posterior operation is preferable. It can be performed in from twenty minutes to a half-hour. The junction of the stomach and the first part of the jejunum being affected around a decalcified bone bobbin, just two continuous sutures being used.

Excision of the ulcer is, as a rule, unnecessary. Pyloroplasty is apt to be followed at a later period by recurring stenosis.

Pylorectomy is an unnecessarily severe operation for simple ulcer, and presents no advantages over gastro-enterostomy.

Pylorodiosis, which consists in stretching the pyloric sphincter, is very dangerous, and also apt to be followed by recurrence.

Complications.—Perforation is one of the most serious complications, and occurs in about 15 per cent. of all cases of ulcer of the stomach. Occasionally recovery from this accident has occurred when the stomach was empty at the time. Statistics clearly prove that operation for perforation of gastric ulcer, if undertaken within a few hours of the accident, is very hopeful, but that death occurs in more than half the cases when operated on after twenty-four hours.

Hemorrhage occurs in 80 per cent. of all cases. Cicatricial contraction of the pylorus is also a frequent complication.

Hour-glass contraction of the stomach occasionally occurs when the ulcer is situated in the middle of the organ.

—Robson, *Brit. Med. Jour.*, Feb. 21, 1901.

THE OPERATIVE TREATMENT OF UMBILICAL HERNIA IN ADULTS.

J. A. Blake, New York, states that the results from operative treatment of umbilical hernia in adults have been disappointing, so much so as to warrant the general dictum that, unless the symptoms absolutely indicate interference, operation is not indicated. This is especially true in regard to operations upon the larger herniæ, but is not in the small and early cases, as statistics show. After briefly considering the conditions which have to be met and overcome in large umbilical herniæ with separation of the recti muscles, the author reviews some of the methods which have been employed for the relief of the condition. These are divided into five categories. 1. Lineal approximation of margins of fascia or fascia and muscle. By far the greater number of operations fall within this group. The method of splitting the sheaths of the recti and union in several layers is the best, and, moreover, is probably the most applicable to the cure of small herniæ. 2. Interlacing of fasciculi of the inner portions of the recti after splitting their sheaths was devised by Dauriac. The author does not see its advantage over the method of simple approximation of the bare muscle. 3. In order to overcome the separation of the recti, the method of involuting the abdominal wall in the middle line was devised, resembling the Czerny Lembert method of intestinal suture. 4. The flap operation, by which the hiatus in the abdominal wall, after removal of the sac, is closed by reflecting flaps from the sheaths of the recti muscles. 5. Lapping the abdominal wall. This method is particularly applicable to the cases in which there is stretching of the linea alba above and below the sac in the median line for the necessary distance, with or without excision of the ring and a portion of the linea alba. The entire wall on one side is then lapped in front of the other, and there sutured, so that the ventral surface of one side is in contact with the dorsal surface of the other. Three cases are reported in which this method of operation was adopted, all of which are too recent to deduce the ultimate results, but which demonstrate the success of the immediate results. Two points in the technique are emphasized, namely, the absolute cleansing of fat from the rectus sheath, which is to be applied to the back of the opposite rectus, and the insertion of the mattress sutures, so that they will be in the course of the muscle fibres and not strangulate them. In all three cases the

suture material used was plain catgut for the peritoneum, No. 2 chromicized gut for the aponeurosis and muscles, and silkworm gut and silk for the skin. Some of the more apparent advantages of this method are: 1. The doubling of the abdominal wall at the hernial site. 2. The breaking of the lines of suture. 3. The broad surfaces for union. 4. The obliteration of the separation of the recti and the reduction in the size of the abdomen. Its field is really not limited to herniæ proper, but also includes the treatment of pendulous abdomen, and of enteroptosis due to laxity of the abdominal wall.—*N. Y. Med. Rec.*

SURGICAL NOTES.

Hernias coexisting with adherent omentum are never safe, and especially so in men of active life and habits. In these cases it is always best to advise operation. *In Cancer of the Breast* the presence of a large amount of fat renders less easy a thorough removal of the glands. Hence the prognosis of cure or prolonged survival must be more guarded in fat than in lean women. *In all Plastic Operations* it is important to remove the stitches as soon as possible. If left too long in the skin they will cause the formation of small scars, while, if the operation has been through mucous membranes, the cutting through of stitches causes the formation of little tags. *Clubbed Fingers*—Sickly, pale children with clubbed fingers may have chronic bone disease, or bronchiectasis, or congenital heart trouble, but in the great majority of instances there is an empyema, and hence the necessity of always carefully examining the lungs in this class of children. *Rectal Exploration*—When investigating the rectum with a long bougie it is always well to remember that there are two possible sources of error. In the first place the instrument may so double over that a mistaken idea of the length of the channel will arise. On the other hand the bougie may be arrested by one of Houston's folds, thus simulating a stricture. *Cancer*—It is permissible to do an incomplete operation for cancer only when it is knowingly performed with the object of relieving pain, soothing the imagination by giving the patient a faint hope, and getting rid of a loathsome sore, and because we know that recurrence in a scar is usually much less painful than the original ulcerative process. *Pain*.—In the diagnosis of malignant tumors it is well to recollect that the element of pain is quite an uncertain one. Sarcomata, for instance, are usually less painful than carcino-

mata, and yet we occasionally encounter cases of painless carcinomata of various regions. In some instances of adenoma the pain may be just as severe as in either of the other two. *Aneurism*—In the presence of large aneurisms of important vessels it is well to remember that operation is most likely to succeed when the occurrence is recent, when there is no evidence of aortic or mitral disease, when there is an absence of the rasp sound along the aorta, which would indicate extensive atheroma, and when there is no important visceral disease.—*International Journal of Surgery*.

OBSERVATIONS ON THE SURGERY OF THE GALL-TRACTS.

Jones (*Medical Record*) states that patients with long-standing disease of the gall-tracts are poor subjects for surgical operation, and surgical interference is attended by considerable risk. In such cases it would seem to be best to do first a cholecystotomy—the simplest operation and the one attended by the least risk—leaving more radical treatment for another time should it become necessary. He emphasizes : (1) The diagnostic value of the point of maximum tenderness on pressure, which is over the gall bladder, at or near the costal margin of the ninth rib. This point in disease of the gall-tracts corresponds in importance with McBurney's point in disease of the appendix. (2) The diagnostic value of the presence of bile in the urine excreted during or immediately after a very brief obstruction of the common duct. (3) That disease of the gall-tracts is of very common occurrence, and is liable to be mistaken for other troubles which it closely imitates, so it is important that the cases be recognized early.—*The American Journal of the Medical Sciences*.

TUBERCULOUS PERITONITIS.

The efficacy of simple incision is well shown in a case recorded by Abbé, of a woman who, for marked tuberculous peritonitis, was operated on by simple incision, and made a complete recovery. Two and a half years after she was operated on for a small ventral hernia ; during this process the abdomen was inspected, and no trace of tubercle was discovered. In the ascitic form five methods of laparotomy have been adopted : 1. Simple incision, with free evacuation of the fluid and closure of abdominal wound. 2. Incision, with subsequent flushing of the abdominal cavity with sterile water, saline solution or some mild antiseptic solution, and closure of the wound. 3. Incision, flushing, and thoroughly drying the abdominal cavity, closing the

wound. 4. Incision and drainage. 5. Incision, drying the peritoneum, and treating it with some drug, as iodoform, camphorated naphthol, etc., closing the wound. Laparotomy with or without manipulation, is of great benefit in a large percentage of cases.—WALLES.—*N. Y. Med. Rec.*

ICHTHYOL.

is recommended by Dr. T. G. Lusk (*Post Graduate*, xv., p. 1007), of the New York Post-Graduate Medical School and Hospital, for relieving the pain and preventing the rupture of vesicles in cases of *herpes zoster costalis*. An astringent, antiseptic drying preparation suitable for the purpose may be made as follows, says the author :

Ichthyol.....	2 fl. dr.
Magnesium carbonate.....	2 dr.
Zinc oxide.....	2 dr.
Water.....	to make 4 fl. oz.

This mixture should be sopped on and a binder applied to prevent rupture from friction. A 5 per cent. ichthyol collodion may also be used with advantage.

ERYSIPELAS INOCULATION FOR THE CURE OF SARCOMA.

The inoculation of twenty-six patients with erysipelas from whom sarcomatous tumors had been removed by Wyeth, and the recovery of the patients and no return of the disease, is an important clinical experience. These clinical facts are all the more important just at this time, as the discovery of the cancer protozoa by Gaylord and Parks following it so closely is more likely to interest the scientific world much more than if these facts had been determined at periods more remote from one another.

It is certain that these two important facts concerning cancer will have much to do with the management of that disease. The clinical experiences of Wyeth certainly warrant the inoculation of sarcomatous patients with erysipelas after the removal of the growth, as the process seems to have been harmless in his hands. He removes the growth, and as soon as the wound heals and is free from the danger of being directly infected, he inoculates his patient in the immediate neighbourhood where the growth was located, and after the erysipelas has manifested itself treats it as he would any case met with in practice. While erysipelas, under some circumstances, may be a very serious thing to consider, ordinarily it is a harmless disease, the tendency of which is to recovery without any evil after-results.—*American Practitioner*.

A NEW TREATMENT FOR TUBERCULOUS GLANDS OF THE NECK WITH MINIMAL SCARRING INVOLVING A METHOD OF STERILIZING A TUBERCULOUS REGION THROUGH THE LYMPH CHANNELS.

G. Betton Massey describes his method as follows: A small opening is made through the skin and into the gland by a narrow bistoury, under a chloride of ethyl spray, and into the opening is thrust a sliver of amalgamated zinc to act as an anode, not insulated, of a weak galvanic current—1 to 3 milliamperes—which is turned on gradually and maintained for a few moments, to cauterize the track and keep it patulous for the treatment proper. When the tract has received a sufficient impregnation with the mixed oxychlorides of zinc and mercury thus developed, to keep it patulous for a few days, the zinc electrode is withdrawn and an insulated gold electrode about the calibre of a piece of No. 18 wire is inserted, its point having previously been amalgamated and made to hold as much mercury as possible. This instrument is left bare for one-quarter of an inch from the point only, in order that all the current action shall be expended within the gland, the remainder of the instrument being insulated with fused hard-rubber or fused shellac. From 2 to 10 milliamperes is now turned on and maintained for ten minutes, or until all the mercury has been dissipated from the gold surface, after which a piece of absorbent cotton or lint is placed over the opening, topped by a piece of plaster, the patient receives an application at intervals of two or three days. Cocaine may be used to deaden the slight pain. Thus the tubercle bacilli are destroyed, while often some of the gland tissue is left. The scar left is a mere point.—*Phil. Med. Jour.*

THE TREATMENT OF TUBERCULOUS PERITONITIS.

Clinical lecture by I. Burney Yeo. The lecturer states that he has seen good results follow the internal administration of iodine and creosote, and the application to the surface of the abdomen of an ointment made up of iodoform and cod-liver oil in equal parts. The best results are obtained in the early stages, and in those in which there is more or less ascitic fluid. In these there is no matting of the intestines or shrinking or adhesion of the mesentery, but in advanced chronic cases, with induration of the various

intestinal coats, adhesions of the coils of bowel to each other, large tuberculous masses and caseous mesenteric glands, neither surgical nor medical treatment offers much hope for recovery. Yeo believes that if iodoform is rubbed into the skin of the abdomen in a young person, it probably rapidly enters the blood, and if its use is persisted in, it is continuously eliminated in the secretions, including the secretions of the serous cavities. It thus comes in contact with the seat of the tuberculous deposit.—*Lancet N. Y. Med. Rec.*

OBJECTS OF DRAINAGE IN ABDOMINAL SURGERY.

The chief purposes for which drainage is employed are as follows: 1. To drain away existing septic material. 2. To afford an exit for the sepsis when the operator fears he has possibly infected his patient. 3. To provoke adhesions, and thereby wall off weak spots from the remainder of the abdominal contents. 4. To keep the peritoneal cavity free of blood and other fluids. 5. To allow of a more certain knowledge of the conditions present in the abdomen. 6. Gauze drains are sometimes employed as tampons to control hemorrhage.—Dr. J. W. LONG—*Annals of Gynecology and Pediatrics*, December, 1900.

PREPARING FOR OPERATION.

The patient having undergone a preliminary course of treatment for a few days by the administration of medicine, careful dietary, and the use of cleansing baths, on the morning of operation, or the previous evening, has the surface of the part to be operated upon, and surrounding parts, carefully prepared by washing and shaving, then washing with an alcoholic and ethereal solution of sterilized green soap and hot water. All the soap is washed away with the sterilized hot water; the skin is then dried with a sterilized towel, after which it is wiped over with ether to remove any grease remaining. It is then sponged over with an alcoholic solution of mercury biniodide 1:500 which may be allowed to dry by spontaneous evaporation; a dressing of sterilized dry wool or gauze is then applied, which is covered with waterproof material and bandaged on. This dressing is not removed until the moment before the operation commences, when the skin may again be moistened with the alcoholic solution of biniodide.—C. Y. PEARSON.—*N. Y. Med. Rec.*

METACARPAL FRACTURE.

Various experiments have proved that the metacarpal fragments are invariably held in place by elastic pressure. For this purpose two rubber drainage tubes of moderate size are chosen, which are lightly pressed into the adjoining interosseous spaces, so that they fill them to a certain extent. They are kept *in situ* by adhesive plaster strips passed around the hand. Thus, the recurrence of the displacement is prevented. The whole is surrounded then by a moss splint, a material which, after being dipped in cold water, adapts itself to the contours of the hand like a plaster-of-Paris splint over which it possesses the great advantages of being absorbent and much lighter. The Roëntgen rays should be consulted before one is satisfied as to the question of impossible union.—CARL BECK.—*N. Y. Med. Rec.*

NEW METHOD OF TREATING FRACTURES.

Leonard F. Hatch (*Bost. Med. Surg. Jour.*, March 28, 1901), describes a new method for treating fractures of all kinds based upon modern surgery. The principles upon which he has based his treatment are to convert all compound fractures into simple ones, and to operate on simple fractures, making them compound, and then apply the first principle, making them simple. Fractures treated by this operative method are practically free from all pain, as both the sharp spiculæ of bone sticking into the soft parts and the swelling are avoided by the operation. In a compound fracture the wound is simply enlarged, while in simple fracture there is a point of selection for the incision. There must be the most perfect antiseptic preparation. Elevate the limb and apply a rubber constrictor. Fit a sterile posterior and anterior splint of any suitable material. The points of selection for incision are for the tibia along the crest, for the femur along the outer side of the thigh, for the radius behind the supinator longus, for the ulna along the ulnar side of the arm. A good free incision should be made, all clots and debris, such as shreds of tissue and loose pieces of bone, should be washed out, and all bleeding points tied. Be sure that the wound is dry, and see that coaptation is perfect. Apply one of the splints before closing the wound, close the wound with catgut sutures without drainage, lay a thin pad of gauze over wound and apply the other splint and bandage quite firmly. Remove dressing on seventh or eighth day and apply ambulatory splint or plaster cast. Hatch

reports in detail fifteen cases illustrating the advantages of this method of treatment, and formulates the following deductions: (1) We should not be deterred from operating on fractures by fear of sepsis, and it certainly is unscientific to adopt a blind way when a better presents; (2) it would be warranted if it did nothing more than to relieve the pain and swelling, which it certainly does; (3) it shortens the repair process about one week; (4) it reduces the chances of deformity and non-union to a minimum. The writer considers the ambulatory splint the best dressing for fractures of the leg.—*Medical News*.

HOME-MADE SPLINTS.

Dissolve one pound of gum shellac in one pint and a half of ninety-five per cent. alcohol, with one drachm borax. Let the mixture stand until all of the shellac has been dissolved; then it is ready to be applied. Old cloth makes the best splints. I generally use an old pair of trousers. Apply the solution to one side of the woolen cloth with a brush and dry thoroughly before a hot fire. It takes about one hour to dry properly. Then apply a second coat on the same side and dry as before. You will then have a single piece, but if you wish a stronger piece, apply the solution on one side of two pieces that have already been prepared, dry them, place them together and press with a hot iron, and they will unite and become as one piece. Always be sure to dry out all of the alcohol. To temper the cloth for use, hold before a hot fire until soft, then apply. It will adapt itself to the shape of the limb at once. To make it set quickly, hold in cold atmosphere or dip in cold water.—*Red Cross Notes*.

HINTS.

SURGICAL NEEDLES—It is a good thing to remember that surgical needles require sharpening about as often as scalpels, and that the use of a hone and a little emery powder will restore to usefulness many needles in an apparently hopeless condition. **DRAINAGE TUBE**—It is well to remember that a drainage tube is a foreign body, and hence an evil. Clean surgery and proper attention to—hæmastosis reduce considerably the number of cases in which drainage is indicated, and it seems to be the tendency of the best surgeons to do the least draining. **A POULTICE** is an excellent thing in its place, but there is no earthly reason for ever making it out of dirty vegetable matter. Gauze and absorbent cotton soaked in weak, warm antiseptic solutions, and covered with

protective, are the only poultices allowable in modern clean surgery. IN CASES OF SEVERE HEMORRHAGE FROM THE LUNGS, due to external wounds, the chest should be immediately opened, and a good-sized drainage tube inserted. This causes pneumo-thorax, and the pressure of air upon the lungs will greatly help in controlling the bleeding. The intravenous injection of saline solution must also be immediately employed. IN CRUSHING ACCIDENTS in which the limbs have been caught in machinery it is very difficult to cleanse the wound properly, owing to the fact that the parts are much covered with grease, due to lubricating substances. Ordinary gasoline is an excellent thing wherewith to remove this grease; it causes no pain, dissolves away the grease, and leaves a clean surface upon which watery solutions of antiseptics can exert their full power. CHILDREN who are prepared for operation must not be kept as long without food, prior to anæsthesia, as is proper in adults. Children weaken rapidly from hunger, and it is best to give them easily digested food up to three or four hours before the operation. As in the majority of instances they need not know that an operation is contemplated; there is none of the inhibitory effect upon digestion, caused by fear, that is so often observed in adults. IT IS IMPORTANT to remember that children, especially in crowded, poor districts, sometimes have empyema without even complaining of chills or showing a rise of temperature, and that the disease is often so insidious as to lead simply to general ill-health long before the parents become alarmed at the child's condition. Any child that has become gradually run down in health should be stripped and carefully examined for empyema, when no other cause is evident.—*International Journal of Surgery*, December, 1900.

VESICAL HYPERÆMIA

of mild degree is best treated by irrigation with a one-per-cent. solution of boric acid, followed by a one-fourth per cent. solution of nitrate of silver.—BIERHOFF. (*N. Y. Medical Record*.)

RECTAL OPERATIONS

require such profound anæsthesia that they are very favorable for the spinal anæsthesia method, the moment there is the least fear of general anæsthesia. Opiates may be given early enough by the mouth to obtain an effect before the cocaine analgesia has ceased, so that the patient is saved not only operative but post-operative pain.—CHASSAIGNAC.

RODENT ULCER.

Rub in resorcin powder each night, after removing crusts.—BLOMFELD.

GELATIN IN ANEURISM.

Gelatin injections should be kept sterile. When large quantities are injected great pain may be produced. Aneurismal pain is usually lessened; the tumor becomes firmer by large organized clots forming.—NIETERT.

INFANTILE ECZEMA (DRY VESICULAR, AND POPULAR).

R_y Zinci oxidi
Amyli,
Adipis lanæ.....ââ 5.
Petrolati..... 10.
Hydrarg. oxid. flav..... 0.25-0.50

M. ft. pasta.

—LEISTIKOW.

EXTEMPORIZED DRESSINGS.

Cheesecloth cut into strips or squares is rendered alkaline by boiling for twenty minutes in a solution of washing soda (two ounces to a quart), then rung out and boiled again in clear water, previously boiled and allowed to settle. It is then passed through a bichloride solution (1:200). Just before using it is wrung out in bichloride solution (1:2,000), —*The Clinical Review*.

TREATMENT OF BURNS OF SECOND DEGREE.

Probably the best local application for burns of the second degree is the solution of picric acid. This is non-toxic in the strength in which it is usually employed and is antiseptic and analgesic. It also possesses the advantage of coagulating the albumin, and thereby diminishes the serous discharge and hastens the reparative process. It has been employed for several years in the Charity Hospital of Paris. It may be used in aqueous or hydro-alcoholic solution. It is soluble in water in about five per cent. It is readily soluble in alcohol. The addition of five to eight per cent. of alcohol not only makes a stronger solution of the acid possible, but seems to impart its own properties, which renders it more effective. The picric acid solution also seems to produce a smoother and better cicatrix.—S. R. MILLER.

Therapeutic Notes.

FLATULENCE AND CHOLIC IN INFANTS.

℞ Magnesii carb..... gr. iiss
 Rhei pulv..... gr. ¼
 Syr. zingiberis..... m v.
 Aq. menth. pip..... q.s. ad ʒ j

M. Sig. : Given every two to four hours to an infant three or four months old.—*Med. Rec.*

FATTY HEART.

A formula credited to A. Robin, by *Merck's Archives* is :

℞ Sodium arsenate..... ʒ gr.
 Potassium iodide ¾ gr.
 Powd. nux vomica..... ⅛ gr.
 Powd. rhubarb..... ¾ gr.
 Ext. dulcamara..... 1½ grs.

Make into one pill. Take one such daily.

Professor Pel, of Amsterdam, after a great deal of experience, has found that the following powder is a most excellent remedy for gastric acidity.

℞ Bicarbonate of soda 10.00 ʒ iiss
 Calcined magnesia 8.00 ʒ ii
 Bromid of soda..... 10.00 ʒ iiss
 Carbonate of bismuth..... 5.00 gr. lxxv
 Sugar of milk..... 10.00 ʒ ijss
 Oil of fennel..... .26 gt. iv

Mix. Dose, from half to a whole teaspoonful, to be taken an hour after eating. An extra dose in case of pain.
 —*Buffalo Med. Jour.*

AN INTESTINAL ANTISEPTIC.

A very good intestinal antiseptic is this which is credited by the *Med. News* to the *Jour. de Med. de Bordeaux* :

℞ Betanaphthol... 3.00 gr. xlv
 Chloroform03 gtt. xv
 Castor oil..... 90.00 ʒ iii
 Spirit of peppermint..... .02 gtt. v

Mix. Adult dose : A teaspoonful in port wine, beer or sweetened black coffee. Child's dose : A teaspoonful.

ROSACEA.

Suprarenal extract in five-grain doses from three to six daily. The extract is simultaneously employed as a tonic.—*Munro*.

FOR WHOOPING COUGH.

The *Journal of the American Medical Association* says that Dr. R. A. Lancaster has had great success in treating whooping cough with this mixture:

R Tincture belladonna.....	16.00-24.00	3 iv-vi
Whiskey.....	30.00	3 i
Phenacetine.....	19.00	3 iiss
Fluid extract chesnut lea- ves.....	180.00	3 vi

Mix. Shake. Label.

Dose—From ten (10) drops for a child one year old to a teaspoonful for a 10-year old child every two to six hours.

FOR FUMIGATING THE BEDROOMS OF CONSUMPTIVES,

The following solution has been recommended to be used as a disinfectant and fumigator for the bedrooms occupied by consumptives:

Formaldehyde.....	60 parts
Creosote.....	15 parts
Oil Turpentine.....	30 parts
Menthol.....	1 part

The liquid is spread on a hot stove-lid or metal plate; about 40 drops are enough for a bedroom of ordinary size.
—*Dietetic and Hygienic Gaz.*

RING-WORM OF THE SCALP.

R Chrysarobin.....	5 parts
Ichthyol. ...	3 "
Salicylic acid.....	2 "
Petrolatum to.....	100 "

This preparation, Unna's ointment, has been given credit by Dr. T. C. Lusk, of the New York Post-Graduate School and Hospital, for the most rapid results in the treatment of ringworm of the scalp. The ointment is rubbed in, spreading of the inflammation to the conjunctiva and face being prevented by an oiled skin cap to the head. A soothing ointment is to follow the strong application after two or three days.—*Med. Age.*

Jottings.

GONORRHOEAL ARTHRITIS may be treated locally by an inunction of one part guaiacol with three parts olive oil. A teaspoonful is rubbed into the affected joint three or four times daily.

TYPHOID FEVER URINE is infectious, and should be as carefully disposed of as is the feces. Turbidity of the urine is frequently caused by the presence of the typhoid bacilli. This condition usually clears up promptly on administration of urotropin or cystogen.

EPISTAXIS WHICH cannot be controlled by compression is best treated by thermo-cautery. Cocaine should be introduced into the nasal cavity and the bleeding point located, after which the cautery should be applied at a dark red heat and held on the spot until cool, care being taken not to detach the eschar. A five per cent. zinc chloride solution may then be applied on a tampon.

CARBUNCLES.—Creel has relied on echthol given internally, in doses of a teaspoonful, in cases of carbuncle, flaxseed poultices applied locally, emptying of pus, scraping out of dead tissue and cleansing with peroxide of hydrogen; after this a topic application of echthol on absorbent cotton every four to eight hours. The average duration of this treatment in his cases was ten days.—*Four. Amer. Med. Ass'n.*

TREATMENT OF EPISTAXIS.—All that is necessary in epistaxis is to fashion, with a pair of scissors, a dry plug of prepared sponge, in size and length comparable with the little finger of a twelve-year-old-boy. This should be carefully soaked in boiled water, to free it from grit, squeezed dry to free it from unnecessary fluid, and inserted its full length, gently, along the floor of the bleeding nostril. No styptic is necessary. The expansive pressure of the soft sponge against the bleeding side, increased by the coagulation of a few drops of blood in its interstices, will check the bleeding at once. It should be removed in twelve hours; under no circumstances should it remain longer than twenty-four. Melted vaseline containing 5 per cent. of carbolic acid, applied with a medicine dropper in liberal quantities, is the only local treatment called for afterward.—B. Cornick, in *Canada Lancet*.

PUNCTURE OF THE abdomen for ascites should always be preceded by emptying of bladder. This is especially important in old men who may have retention of urine due to hypertrophied prostate.

MONSEL'S SOLUTION, placed under the ingrowing edge of a toe-nail, will tan the inflamed tissue and tend toward a cure. The application should be kept on for a number of days. The nail should be scraped very thin in the middle line.

A USEFUL PRESCRIPTION IN MIDWIFERY.—C. H. Miles, in the *Clinical Journal* of December 9, 1900, says that the following prescription will be found useful in primiparæ, especially during the first stage of labour, when the patient is nervous, irritable, and hysterical, the os rigid and undilatable, and the pains severe and irregular :—

R̄ Potassæ bromidum.....	gr. x.
Sodæ bromidum.....	gr. x.
Ammon, bromidum.....	gr. x.
Chloras hydras.....	gr. x.
Tinct. aurantii.....	m x.
Liq. strychninæ.....	m iij.
Tinct. calumbæ.....	m x.
Aqua chloroformi.....	oz. j.

RULES FOR RECTAL ALIMENTATION.—The following rules are given in Thomas' "Sick-Room Dietary :—" Cleanse the rectum, one hour before the nutritive enema, by flushing with two or three pints of warm soapsuds. Inject high (twelve to eighteen inches) to the sigmoid flexure, using the soft-rubber rectal tube for adults and the soft velvet-eyed No. 12 or No. 14 catheter for children. Use sweet oil or vaseline as a lubricant, but not glycerine. Expel all air from the tube. Inject slowly two to six ounces of the prepared food warmed to body temperature. Do not inject oftener than once in six hours, except in emergencies. Aid retention of food by placing patient on the left side, the hips elevated by a pillow, a soft compress retained against the anus for twenty to thirty minutes. For rectal irritability give five to twenty drops of tincture of opium with the nutrient enema, or the same amount of tincture, or one-half to one grain of extract of opium one-half an hour before the enema. This dosage must not be often repeated. Apply 2 per cent. cocaine solution to painful hemorrhoids.

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Editorial.

THE ABOLISHMENT OF THE CANTEEN.

Many of our readers must have seen the attacks made on the Minister of Militia during the last two years for permitting canteens to be opened in the annual training camps of our volunteer militia, and existing at the regimental depots of our permanent force. Ladies have been the attacking party, and the subject has been so persistently approached that we think the Hon. Dr. Borden must have felt at times that his peace of mind lay in the direction of surrender. Fortunately, we believe, he resisted, and the canteen still remains. That he was fully justified in the stand he took must now we believe be admitted by all those who knew anything of the regimental canteen, and especially what has been done with it in the United States' army within the past year. So far as our knowledge extends, we do not know that any attempt has ever been made to deprive British regiments of their canteen. Yet, we presume there is, indeed we know there is, in the British Islands a strong and influential temperance party, who fortunately have shown their good sense by leaving this particular question untouched. Not so in the United States. So strong was the demand among a certain influential portion of the population, that Congress less than a year ago passed a law abolishing the canteen in the regular army service. All reports which reach us indi-

cate that this abolition of the army canteen was a serious blunder. We believe that everything possible should be done to elevate the moral condition of the soldier, but it is now fully admitted by those best qualified to judge that abolishing the canteen has made the morals of the American soldier worse instead of better. Since the canteen has been abolished, so soon as soldiers get their pay they go to the nearest saloon, where they squander their money in drinking the most abominable kind of liquor and indulge in gambling, subsequently visiting the lowest brothels where they get venereal diseases of the very worst type. Another very serious feature is the immense increase in the number of desertions, which those best able to judge attribute to the same cause.

The Association of Military Surgeons at the recent St. Paul meeting passed the following resolution:

"Whereas, The Association of Military Surgeons of the United States, now in session at St. Paul, recognizes that the abolition of the army post exchange or canteen has resulted, and must inevitably result, in an increase of intemperance, insubordination, discontent, desertion and disease in the army; therefore, be it

"Resolved, That this body deplors the action of congress in abolishing the said post exchange or canteen, and, in the interests of sanitation, morality and discipline, recommends its re-establishment at the earliest possible date."

The American Medical Association also passed the same resolution. The discussion was very animated at the Association, but the general sentiment was that the canteen was a much smaller evil than the present condition of affairs.

Dr. W. H. DeWhite, of Cincinnati, writes to the *Medical Fortnightly*, published at St. Louis, Mo., that he is trying to establish the fact which, from his personal observation, he believes to be true, of an inherited tendency or predisposition to appendicitis. He asks the favor that the profession will look into the history of their cases and let him know the result.

THE PAINLESS REMOVAL OF ADHERENT DRESSINGS.

The Dublin *Medical Press and Circular* says: Patients as well as practitioners, are familiar with the suffering entailed by the removal of gauze dressings, these dressings having the drawback of adhering very closely to granulating surfaces owing to their loose texture. Anæsthesia has abolished the pain attending surgical operations, but leaves the patient exposed to the pain of repeated renewals of the dressings. Dr. von Mikulicz, of Breslau, suggests an easy means of obviating this drawback, viz., by wetting the dressings with oxygenized water. This provokes a copious evolution of bubbles of gas, the mechanical effect of which is to free the gauze and allow its removal without causing pain. The method is so simple as to deserve the notice of surgeons.

MEDICAL FACULTY, UNIVERSITY OF BISHOPS COLLEGE, MONTREAL.

This Faculty has re-arranged several important chairs and additions made which will bring strength to others. The following embrace the additions and changes: Frank R. England, M.D., Professor of Surgery; W. G. Reilly, Lecturer in Anatomy; Robert H. Craig, M.D., Lecturer in Laryngology; W. E. Deeks, B.A., M.D., Lecturer in Medicine; James M. Jack, M.D., Lecturer in Dermatology and Registrar of the Faculty; Louis Laberge, M.D., City Health Officer, Lecturer in Hygiene and State Medicine; E. A. Robertson, B.A., M.D., Instructor in Gynæcology; C. E. Gurd, B.A., M.D., Instructor in Gynæcology. The above are additions to the Faculty. The following members of the teaching staff have received new positions: W. Grant Stewart, B.A. M.D., Lecturer in Medicine; George T. Ross, M.D., Lecturer on Laryngology; A. J. Richer, M.D., Lecturer in Medicine; William Burnett, M.D., Lecturer in Obstetrics; Frank J. Hacket, M.D., Lecturer in Surgery. The session opens on the 1st of October, and we hear,

it promises to be one of the most successful. The addition of a large amount of new blood, selected from the best in Montreal, is sure to arouse enthusiasm. Calendars can be had from Dr. Jack, 56 Beaver Hall Terrace.

DEATH OF THE HON. J. J. ROSS, M.D.

The death of the Hon. Dr. Ross, which took place on the 4th of May, removes one who was well known politically and medically. He was a strong Conservative, and once held the position of Premier of the Province of Quebec. At the time of his death he was a member of the Legislative Council of Quebec Province and also of the Senate of the Dominion of Canada. A few years ago he was speaker of the latter. He took a warm interest in all medical matters which came before the Quebec Council, and twice occupied the position of President of the College of Physicians and Surgeons of Quebec. His name indicated his Scotch origin, but he was a true French-Canadian. His character included the best of the two races from which he came. His political career was untarnished. No breath of scandal ever touched the name of John J. Ross.

THE JEWISH RACE FROM A MEDICAL POINT OF VIEW.

It has always been claimed that the Jewish race live longer and enjoy better health than their Christian brethren. That, to a certain extent, this is true is proved by an article by Dr. Fishberg, which recently appeared in the *New York Medical Journal*. The Jewish population of the United States is estimated at a little over a million. From a careful examination Dr. Fishberg states that the duration of life among the Jews is greater than among Christians, the prolongation being due to the smaller mortality among infants. This fact is significant, as statistics prove that their marriage rate is smaller, and each marriage less fertile than among other denominations. They seem to have lost their former

claimed immunity from zymotic diseases, but they still have a marked immunity from tuberculosis. In the crowded districts of New York, where the Irish, Germans and English had a mortality of this disease of from 19 to 13 per cent., the Jews had only a mortality of 5.76 per cent. As a race they are remarkably free from alcoholism and syphilis, the latter evidently we believe due to their circumcision, as they appear to have gonorrhœa, however, equally with their Christian brethren.

Book Reviews.

- A Textbook of the Practice of Medicine.** By Dr. Herman Eichhorst, Professor of Special Pathology and Therapeutics and Director of the Medical Clinic in the University of Zurich. Translated and edited by Augustus A. Eshner, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic. Two octavo volumes of over 600 pages each; over 150 illustrations. Philadelphia and London: W. B. Saunders & Co., 1901. Canadian agents, J. A. Carveth & Co., Toronto. Price per set: Cloth, \$6.00 net.

The author of these two volumes is not so well known on this side of the Atlantic as he is in Germany, where he is ranked among the best of their distinguished medical men. If these volumes meet with the sale their value entitles them to, his name must in the future with us carry great weight. Like most German authors, he is strong in diagnosis and his pathology is written in a clear and concise style, and, unlike the majority of German writers, he is evidently a firm believer in therapy. The two volumes are produced in the very best possible style.

F. W. C.

- Progressive Medicine, Vol. II, June 1901.** A quarterly digest of advances, discoveries and improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia, assisted by Dr. H. R. M. Landis. Lea Brothers & Co., Philadelphia and New York, 1901.

Each succeeding issue of this elegant quarterly seems to be an improvement on those which have preceded. By this time it has fully established its reputation and is steadily increasing the number of its readers. The present volume contains *Surgery of the Abdomen*, including *Hernia*, by Dr. Coley; *Gynæcology*, by Dr. John G. Clarke; *Diseases of the Blood and Ductless Glands*;

Hæmorrhagic diseases ; Metabolic diseases, by Dr. Stengel ;
Ophthalmology, by Dr. Jackson.

F. W. C.

Diseases of the Intestines. By Dr. I. Boas, specialist for gastro-intestinal diseases in Berlin ; authorised translation from the first German edition, with special additions by Seymour Basch, M. D., New York City, with forty seven illustrations. New York, D. Appleton & Co., 1901.

This is a work of rare merit, and any physician who does not have it in his library cannot possibly be up to date in the interesting and important diseases which affect the intestinal tract. Moreover, it is, we believe, the only volume in the English language of a detailed and exhaustive character on this class of affections. The book is intended more especially for the requirements of the general practitioner upon whose shoulders Dr. Boas believes should rest the responsibility for any operative interference ; the surgeon alone being responsible for the technics. This is, we think, contrary to the generally accepted idea, yet we think that perhaps Dr. Boas is right. To be in a position to accept this responsibility, a very careful study of intestinal diseases is necessary, and this volume will help most materially to that end. General practitioners of the present day are very apt to avoid being present at major surgical operations. Our author thinks that so far as abdominal surgery is concerned, this is a mistake. This department of surgery has made gigantic advances during the last few years and given the medical man many hints for medicinal treatment. If he wishes to keep abreast of progress he must follow these advances with the greatest conscientiousness, and consider carefully the changes made from time to time in surgical technique. That our author is nevertheless inclined to be conservative is proved by the following : "As an internal practitioner, I have naturally little sympathy with extreme radical measures, and with increasing experience believe with conservative surgeons that we have almost reached the limits of possibility in intestinal surgery." The chapter on examination of the feces is full of most valuable information, from which secretion, he believes, much can be learned. Perhaps he is right, yet most men who would not hesitate to carefully examine an offensive lochia, or a cancerous discharge, hold back from examination of the feces. When it is known that so much valuable information may be gained from an examination of it ; the objection is sure to disappear. Altogether, we consider Dr. Boas' book one of the, if not the most valuable, which has emanated from the English press for many a day.

F. W. C.

A System of Practical Therapeutics. By Eminent American and Foreign Authorities. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics, Jefferson Medical College ; Physician to Jefferson College Hospital, etc., Philadelphia. New (2d) edition, thoroughly revised. In three very

handsome octavo volumes, containing 2,593 pages, with 427 engravings and 26 full-page colored plates. Per volume, cloth, \$5.00 net; leather, \$6.00 net; half morocco, \$7.00 net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1901.

Dr. Hare's name is so well known in connection with his popular work on Practical Therapeutics that no introduction for these volumes is required.

This system is designed to furnish a thoroughly practical work of reference in medical treatment, and also in the management of such surgical cases as are met with by every physician. The needs of the general practitioner have been kept constantly in view by the Editor and his collaborators, and their endeavour has been to prepare articles so clear and definite, so comprehensive and detailed that the reader may be able to carry out successfully the methods which the widest experience has shown to produce the best results.

The work is above all practical. Each author tells with minute detail how he would treat the case under consideration if he himself were at the bedside. Illustrations have been freely used whenever they can make the text more clear, and prescriptions indicating the best methods for combining remedies for definite purposes will be found in abundance throughout the work. Remedial agents other than drugs, preventive measures, etc., are carefully and completely covered, and in the third volume special attention is given to treatment in those general and special surgical affections which the family physician is likely to meet in his regular practice.

Although nominally a second edition, this system is practically a new work, having been carefully revised in every line in order to reflect the knowledge of to-day. Many of the articles are entirely new, as will be seen from the following summary of the contents of volume I.

General Therapeutic considerations, by Horatio C. Wood, M. D., LL. D.; Prescription Writing and the Combination of Drugs, by Joseph P. Remington, Phar. D., Ph. M., F. C. S.; General Sanitation, by Henry B. Baker, A. M., M. D.; Nutrition and Foods, including the treatment of Obesity and Leanness, by I. Burney Yeo, M. D., F. R. C. P.; General Exercise, by Edward Mussey Hartwell, Ph. D., M. D.; The Rest-Cure for Neurasthenia and Hysteria, by John K. Mitchell, M. D.; Electro-Therapeutics, by A. D. Rockwell, A. M., M. D.; Hydrotherapy, by Simon Baruch, M. D.; Climate, by S. Edwin Solly, M. D.; Mineral Waters and their Medicinal Uses, by James K. Crook, M. D. (*new*); Massage and Swedish Movements, by Robert E. Moore (*new*); Disinfection, by W. M. L. Coplin, M. D. (*new*); Diseases of the Thyroid and Thymus Glands, including Myxœdema, Cretinism, Grave's Disease and Obesity, by S. J. Meltzer, M. D.; Chronic Articular Rheumatism, Rheumatoid Arthritis, and Gout, by James Stewart, M. D. (*new*); Treatment of Diabetes Mellitus, by James Tison, M. D. (*new*); Diseases of the Blood, by Ralph Stockman, M. D., F. R. C. P. Edin. (*new*); The Present Treatment of Syphilis, by

Edward Martin, M. D. ; The Treatment of Tuberculosis, by Lawrence F. Flick, M. D. (*new*) ; Scrofulosis, by Walter Chrystie, M. D. ; Scurvy, or Scorbutus, by Charles Edward Banks, M. D. (*new*).

The second volume of this great work shows on every page its practical character and the endeavour of its editor and author to furnish exactly that aid for which every physician, and especially the general practitioner, seeks in times of doubt and anxiety.

Comparatively few physicians have the opportunity to benefit by a long experience in a large hospital, nor can all practice in great cities where diseases of every sort are met with in varying types and phases. The value of this work then, to the general practitioner, cannot be overestimated, giving as it does in careful detail the most recent accepted methods of treatment in the chief medical centers.

Therapeutics is a Post-Graduate course which every physician may take in his own office with acknowledged authorities as his instructors and the experience of the world for his study.

The second volume contains able practical sections on the following subjects :

Typhoid Fever (*new*), by H. A. Hare, M. D., Philadelphia ; Malarial Fevers, by James M. Anders, M. D., LL. D., Philadelphia ; Small-pox, by William M. Welsh, M. D., Philadelphia ; Varicella, Rubella, Rubella and Scarlatina (*new*), by J. P. Crozer Griffith, M. D., Philadelphia ; Yellow Fever (*new*), by D. T. Lainé, M. D., Havana ; Dengue (*new*), by J. W. McLaughlin, M. D., Galveston ; Acute Tonsillitis and Influenza. Acute Articular Rheumatism (*new*), by Frederick A. Packard, M. D., Philadelphia ; Diphtheria (*new*), by Floyd M. Crandall, M. D., New York ; Spasmodic Croup and Rickets (*new*), by Floyd M. Crandall, M. D., New York ; Diseases of the Mucous Membrane of the Mouth, and Mumps (*new*), by Floyd M. Crandall, M. D., New York ; Pneumonia, Croupous and Catarrhal (*new*), by H. A. Hare, M. D., Philadelphia ; Asthma, Bronchitis and Whooping-Cough, by Norman Bridge, M. D., Chicago ; Acute and Chronic Organic Diseases of the Heart, by W. H. Thompson, M. D., LL. D., New-York ; Diseases of the Blood-Vessels, by Frederick C. Shattuck, M. D., Boston ; Nervous Diseases of the Heart, by Sir Lauder Brunton, M. D., D. Sc., LL. D. Edin., LL. D. Aberd., F. R. C. P., F. R. S., London ; Diseases of the Stomach, by Thomas G. Ashton, M. D., Philadelphia ; Diseases of the Liver, Gall-Bladder, Hepatic Duct and Spleen (*new*), by John H. Musser, M. D., Philadelphia ; Diarrhoeal Diseases and Dysentery, by W. W. Johnston, M. D., Washington ; The Intestinal Parasites, by H. A. Hare, M. D., Philadelphia ; Diseases of the Kidneys, by N. S. Davis, Jr., M. D., Chicago ; Headaches and Neuralgia, by Wharton-Sinkler, M. D., Philadelphia ; The Drug Habits, by F. X. Dercum, M. D., Philadelphia ; The Disorders of Sleep, by Hugh T. Patrick, M. D., Chicago ; Locomotor Ataxia, Acute Infantile Spinal Paralysis, Myelitis, and Amyotrophic Lateral Sclerosis, by M. Allen Starr, M. D., Ph. D., New York ; Apo-

plex, Brain Tumour, Spinal Tumour, Meningitis, Cerebritis and Neuritis, by Charles K. Mills, M. D., Philadelphia; Spasmodic Affections of the Nervous System, by Joseph Collins, M. D., New York; The Medical Treatment of Insanity, by H. M. Bannister, M. D., Kankakee, Ill., Hospital; Treatment of Insanity, by Edward N. Brush, M. D., Baltimore; The Modern Treatment of Diseases of the Skin, by Henry W. Stelwagon, M. D., Philadelphia.

The great success achieved by this work in its first edition demonstrated its particular adaptation to the requirements of practicing physicians, those who are well enough posted themselves to realize that constant improvements are being made in treatment which it behooves them to use for their own and their patients' benefit.

No part of medicine is developing so fast as the apex—the end, aim and object of it all—namely, the best thing to be done, or practical therapeutics, whether non-medicinal means are to be employed or medicines in their best combinations. This work covers all and tells all in the best and plainest manner, with full details and prescriptions for all contingencies. The advances aforesaid are represented to the latest date in this new edition, which is well worth its value to owners of its predecessor and is indispensable to all who would be thoroughly equipped with an authoritative guide and complete reference book on practical medicine.

The Surgical Volume tells the general practitioner how to do and perform everything in a surgical way that he is likely to meet and how to conduct post-operative treatment in cases which have required a surgical specialist. Rich and instructive engravings and colored plates are introduced to illuminate the text whenever desirable.

The following briefly shows the contents of volume III:

Anæsthesia and Anæsthetics (*new*), by Charles Lester Leonard, M.D.; Surgical Technique (*new*), by Charles H. Frazier, M. D.; The Treatment of Fractures and Dislocations (*new*), by Henry R. Wharton, M. D.; Minor Surgery and Bandaging (*new*), by George W. Spencer, M. D.; Cerebral Concussion and Shock, by Joseph Ransohoff, M. D., F. R. C. S., Eng; Pleural Effusion and Empyema; Abscess and Gangrene of the Lung, by A. J. McCosh, M. D.; Peritonitis Non-Operative and Post-Operative, Appendicitis, Paratyphlitic Abscess, and Obstruction of the Bowels, by George Ryerson Fowler, M. D.; Obstruction of the Intestines, by Edward Martin, M. D.; Diseases of the Rectum and Anus, by Joseph M. Mathews, M. D.; Therapeutics of the Male Genito-Urinary Tract, by William T. Belfield, M. D.; Therapeutics of the Genito-Urinary Disease of Women, by Edward E. Montgomery, M. D.; Therapeutics of Pregnancy, Parturition and the Puerperal State (*new*), by Edward P. Davis, A. M., M. D.; Diseases of the Eye and their Treatment by the General Practitioner, by Casey A. Wood, M. D.; Diseases of the Ear and their Treatment by the General Practitioner, by S. MacCuen Smith, M. D.; Diseases of the Nasal Chambers and Associated Affections, by E.

Fletcher Ingals, M. D.; Diseases of the Uvula, the Pharynx and Larynx, by D. Braden Kyle, M. D.

This work is undoubtedly the best and most comprehensive system of practical therapeutics which we to-day possess, and no up-to-date physician can well afford to do without it. R. C.

PUBLISHERS DEPARTMENT.

No one has a better right than Andrew Carnegie to write upon "British Pessimism," for he is one of the field marshals of American industry, whose exploits have done much to occasion that pessimism. His article on that subject, reprinted from *The Nineteenth Century*, will be found in *The Living Age* for July 20.

Sydney C. Grier's striking story of life in India, "The Warden of the Marches," which suggests Mrs. Steel's stories in the intensity of its interest, is concluded in *The Living Age* for July 6. It is published in book form by the Blackwoods in London, and has attracted much attention.

The next serial in *The Living Age*, beginning in the number for July 13, is Mathilde Serao's "Sister Giovanna of the Cross," translated from the Italian. It is a pathetic and exquisitely written story of a nun, forced out into the world by the closing of the establishments of the religious orders. It has a peculiar timeliness, in view of the discussion of the Associations' Law in France.

Latter-day achievements in the direction of photography in colors are interestingly described in an article entitled "The Sun as Painter in Water Colours" in *The Living Age* for July 13.

SANMETTO IN UTERINE CONGESTION.

Dr. M. J. Halsey, of Fowler, Ind., writing, says: "I have found Sanmetto perfectly satisfactory, and I take pleasure in recommending it in cases of uterine congestion, having tried it and proved its efficacy in such a case. I have placed it in the foremost of my list of favorite remedies for congestion of any mucus membrane in the body."

Dr. Richard Eiche, of Cleveland, Ohio, writing, says: "It is doubtless of great value to the medical profession that we have a remedy at our command like Sanmetto. I have used this remedy with much success in irritation and inflammation of the neck of bladder, in prostatitis, in nervousness arising from irritation of uterus, ovaries and testes, in incontinence of urine and in old cases of gonorrhea and gleet. This remedy also powerfully influences the reproductive apparatus. It is not here my intention to waste space in pathological discussions, but will say that Sanmetto is a weapon in the hands of the physician and a backbone to the worn and old of both sexes."

AN ADDITION TO OUR NEXT MATERIA MEDICA EARNESTLY RECOMMENDED.

For many years I have prescribed Sanmetto extensively, and I should assassinate Truth were I to assert that, in a single instance, the results were otherwise than wholly satisfactory. There is not a form of genito-urinary inflammation wherein I have not used it. I can sincerely and earnestly recommend its addition to our next Materia Medica.

A. MAZETTA ROWE, M.D.

Glasgow, Ky.

CANADA MEDICAL RECORD

JULY, 1901

Original Communications.

NOTES FROM THE CLINIC

OF DR. F. W. CAMPBELL.

Professor of Medicine, Faculty of Medicine, University of Bishop's College,
at the Montreal General Hospital.

Codeine in doses of $\frac{1}{8}$ to $\frac{1}{4}$ of a grain three times a day is frequently successfully used in tickling cough. It is said to exert a special influence on the nerves of the larynx.

Attacks of asthma are often abated by provoking nausea rapidly. For this purpose use ipecac, apomorphia. In the case of persons who do not smoke, tobacco may be used.

It is advisable to make a determined effort early to control a rheumatic attack. The longer a case lasts the greater probability of the heart becoming affected.

Charcoal, sub-nitrate of bismuth and carbonate of magnesia will often relieve gastric pain due to acidity or the presence of an excessive quantity of gas.

Alkalies, diuretics, laxatives and special attention to diet will often relieve rheumatic attacks in children better than will the salicylates.

When the steam bath is indicated in country practise it is easily and satisfactorily given by boiling dozen or more ears of corn, taking them from the water while boiling, wrapping in cloths moistened in hot water and packing them as close to the patient as possible. Keep him closely covered,

and a few moments will bring the most profuse perspiration you ever saw.

Ergotin, hypodermically, is by some considered superior to most remedies in facial neuralgia. It is said that one injection will bring about a prompt cure.

For the diarrhoea of typhoid fever there is nothing that will give more satisfaction than the salicylate of bismuth in doses of ten grains every four hours.

Various new remedies are being suggested to prevent pitting in smallpox, among them ethol. Dr. Campbell has had large experience with smallpox, and says he knows nothing better than the application of tincture of iodine, twice daily for two days and then once a day till the pustules have arrived at maturity and dries. Then almond oil should be applied two or three times a day till the crusts fall off. The iodine treatment was introduced fifty years ago by Dr. James Crawford, of this hospital. In the everlasting rush for something new it has been forgotten.

To meet collapse strychnine is an invaluable remedy. We may give hypodermically 1-20th of a grain every two or three hours—until 1-3rd of a grain is given—then stop. Digitalis is also a valuable remedy in collapse.

Headache almost always yields to the simultaneous application of hot water to the feet and back of the neck.

A towel folded, dipped in hot water, wrung out rapidly and applied to the stomach acts like magic in cases of colic.

CHRONIC HYDROCEPHALUS.

This disease has for several years not been as frequently met with at this clinic as formerly. I do not think that this is due to any diminution in the number of cases, for I meet with it in private practice about as much as I ever did. I am, therefore, unable to explain its apparent infrequency here. Still we have had two or three cases lately, and the child now before you is one of the latest. The disease is characterized by an accumulation of fluid in the ventricles of the brain. In most cases it is congenital, or shows itself

within six months after birth. Some attribute it either to arrest of brain development or to chronic inflammation of the lining membrane of the ventricles. The amount of fluid varies from a few ounces to several pints. It is limpid in character, colorless and watery. The ventricular lining membrane is often thickened, granular and rough. The arachnoid membrane is often stretched. The brain is altered in shape, its convolutions being flattened. Its texture is at times firmer than normal. In other cases it is soft and has a macerated look. Generally the optic nerves are stretched—the cranial bones thin and spongy—the fontanelles enlarged. The head enlarges sometimes enormously and becomes so heavy that the muscles are unable to hold it erect, so that it requires support. The forehead is prominent and large. The eyeballs are prominent and look downward. Distinct fluctuation can generally be felt in the fontanelles. The face has a wedge shape look, while the countenance gives the child an oldish appearance. Squinting is common, and the child burrows its head on the pillow—depressing the posterior part. It often rolls the head from side to side. The child is peevish and irritable, and its sleep is broken; often the first sign of waking is a sharp, shrill cry. Sight is impaired—sometimes there is total blindness. I have seen the latter more than once. If the child is old enough to walk there will be less of the co-ordinating power. Convulsions are not uncommon. The body wastes and the skin has a shrunken, shrivelled look—temperature is lowered. Appetite is often excessive and vomiting common. Bowels generally constipated and the stools unhealthy. Death is the usual termination, though I have seen more than one recovery. The disease may last several years. It generally terminates in a few months by coma or convulsions.

Treatment.—Endeavour to diminish the fluid in the ventricles by giving diuretics as infusion of digitalis—squills—compound spirits of juniper, nitrate and acetate of potash. The last is perhaps the best remedy we have, and to a child of six months two grains may be given every three hours.

The bowels should be relieved occasionally by a purgative, and for this purpose there is nothing better than grey powder. Restlessness may be treated by hyoscyamus and chloral and bromide of potash. When convulsions come on a combination of bromide of potash and chloral must be given—preceded by a brisk purgative—such as a ten grain dose of calomel. I give such a dose of calomel constantly to a child a year or even eight months old. Pressure on the head may be tried if the child will bear it. This is done by a close fitting cap or by means of strips of adhesive plaster. These strips should be applied as follows: *First*, one strip from each mastoid process to the outer part of the orbit on the opposite side. *Second*, from the back of the neck along the longitudinal sinus to the root of the nose. *Third*, over the entire head, so that the different strips will cross each other at the vertex, and, lastly, a strip long enough to pass three times around the head, passing above the eyebrows, the ears and below the occipital protuberance. It must not be applied too tight or convulsions may ensue. Puncture of the distended ventricle has frequently been made, and in the presence of pressure symptoms would seem a rational operation. The aspirator needle may be inserted at the outer angle of the anterior fontanel. Only a few ounces of fluid should be removed at a time. Convulsions and acute meningitis have followed. It has also been recommended to puncture the sub-arachnoid sac between the third and fourth lumbar vertebrae. The spinal cord cannot be injured at this point, and the fluid can be removed more slowly and with much less danger to collapse. It is also advised to apply counter irritation to the nape of the neck in the form of sinapisms—biniodid of mercury ointment or a fly blister. Cod liver oil internally and by inunction is advised. The patient should be placed in a dark room and absolute quiet enjoined.

Selected Articles.

DISEASES OF THE LUNGS.

By ALBERT ABRAMS, A. M., M. D. (Heidelberg), San Francisco Cal.

Consulting Physician for Diseases of the Chest, Mt. Zion Hospital and the French Hospital.

COUGH.—This is a prominent symptom of disease of respiratory apparatus. The chief object of the act is the expulsion of pathologic products which, if allowed to accumulate, would result primarily in dyspnea to be followed by asphyxia. For this reason, the use of *narcotics* which render the respiratory mucosa anesthetic, are dangerous when the secretions are abundant. The probable direct cause of cough is irritation of the fibres of the pneumogastric nerve or its branches. A *cough center* is presumed to exist in the floor of the fourth ventricle. The mechanism of cough is briefly as follows; Following closing of the glottis and a deep inspiration, the intra-thoracic pressure by means of the auxillary muscles of expiration is augmented; then, with sudden opening of the glottis, an audible outrush of air ensues which in turn brings with it, the substances forming the sputa. Account must also be taken of the *bronchial musculature*, which surrounds the entire bronchial tree even to its ultimate ramifications. Inasmuch as this musculature is largely concerned in the genesis of phenomena associated with pulmonary neuroses, a few words concerning it will be apposite. Irritation of the vagus branches will bring these smooth muscular fibres to contraction, and after-section of the vagus in the dog, the bronchioles on that side become conspicuously relaxed. These fibres play an important rôle in coughing and expelling adventitious products resident in the bronchial tree. They confer on the bronchioles a distinct movement, such as we observe in other canals like the intestines, esophagus, etc. What has been denominated the *lung tone* is practically nothing more than the normal integrity of these muscular fibres. Under the influence of cutaneous irritation, as we will subsequently show in the study of the lung reflex, these fibres functionate as constrictor and dilator muscles. In the young, in whom the use of the muscles is unknown and for that matter in many adults, for coughing is in itself an art which must be learned, no expectorated material is brought to light. In the old or enfeebled, the musculature concerned in the expulsion of matter is deprived

of its normal tone. *Pain* from any cause may suppress a cough, and for this reason, the use of narcotics may be indicated. Narcotics subserve a useful purpose in diagnosis. Assuming we have a pleuritis complicating a pneumonia in which cough is a prominent symptom. If the cough is suppressed by doses of some narcotic, let us say opium, just enough to control pain, then we are in a position to say that the cough is probably caused by the pleuritis. When the mind is obtunded, as in brain lesions and the pyrexias, no cough is produced despite bronchial irritation, hence the tracheal mucous rattling, which has been popularly referred to as "*the death rattle*," is always an inauspicious sign. There are *different kinds of cough* from which a diagnostic inference may be drawn. The *dry cough*, unaccompanied by expectoration, is present as an initial symptom of phthisis, pleuritis, and what has been called a nervous cough. A *moist cough* is characteristic of free expectoration. We are all familiar with the *paroxysmal cough* of pertussis.

According to genesis, we may divide coughs into endo- and extra-pulmonary coughs. An endo-pulmonary cough is a reflex discharged from the respiratory tract in consequence of irritation of the vagus branches which supply this tract with sensory fibres. All parts of the bronchial mucosa are not equally sensitive to irritation, as has been repeatedly demonstrated by animal experiments. Accumulations of the mucus in the lung alveoli are incapable of exciting cough, and fail to do so until the accumulated material attains the mucosa of the communicating bronchiole. No reliance can be placed on the statement of the patient regarding the source of the expectoration. I have instituted inquiries in this direction among my phthisical patients, and the majority of them refer the source of the sputum to the upper part of the chest. This is no doubt due to the fact that the tracheal mucosa is extremely sensitive, and it is along the course of the trachea that the patient first feels the dislodged sputum. The relegation of a cough to its correct etiology is a perplexing problem. The intensity of a cough and the quantity of expectoration are usually proportionate. When this relation is disturbed we must look for an extra-pulmonary cause for the cough. Cough is an art that must be learned. Patients may be disciplined to inhibit a cough, and they may be educated to dislodge mucus by a single expulsive effort.

Dettweiler, a well-known phthisiologist, informs his patients, that to cough in public is as much a breach of

etiquette as to scratch one's head when it itches. At Falkenstein where there are a hundred patients, it is rarely that one hears a cough.

To my mind no chest examination is complete without the use of the Roentgen rays ; I employ them as a routine measure, as I do the low objective on my microscope, reserving the high power for detail work. I do not complete, but initiate an examination with the Roentgen rays, and having located a suspicious lung area, the usual methods of examination are employed to interpret its significance.

It not infrequently happens in our chest examinations, where auscultation is alone of value in diagnosis, that no anomalies of the respiratory sound are heard unless special manœuvres are invoked. Natural breathing is of no value in such instances. The patient must be taught "diagnostic breathing." The muscles of expiration must be brought into forcible action, so that expiration is intensified and prolonged. Auscultation of the lungs in different positions will, by increasing respiratory activity in definite areas, bring out certain sounds. One must not forget that in some persons, forced expiration causes a bronchospasm and develops sounds not unlike those of asthma. In such a contingency amyl nitrite inhalations are valuable. If the subject inhales the drug, we need not fear mistaking the sounds provoked by voluntary spasm of the bronchial tree. In some forms of bronchitis spasm may be an element in the dyspnea, and conversely a catharral factor may complicate an attack of asthma. *Nitrite of amyl* by inhalation removes the dyspnea, if occasioned by spasm, but does not influence it if dependent on bronchitis. To differentiate the rales caused by bronchitis from those of asthma, auscultate the chest after nitrite of amyl inhalation ; the rales of the former persist, while the latter are dissipated. This drug, when inhaled, will bring out certain sounds which would otherwise remain unnoticed.

Extra Pulmonary Coughs.—Such a cough must only be suspected when a systematic examination of the lungs proves negative, although we must not forget that the conventional methods in the examination of the lungs are not always crucial in negating the presence of some anomaly. Since the advent of the Roentgen rays in clinical medicine, this fact has been most cogently demonstrated by skiascopy.

Spasm of the bronchial muscle is an undoubted element in many coughs notably in bronchial catarrh. In the latter

affection I have frequently encountered a spasmodic cough, which was practically asthma without the paroxysmal characteristics and which persisted despite the use of the conventional remedies. In such instances, *atropin* was diagnostic by its curative action. Spasmodic coughs rapidly yield to this remedy. I usually administer it in a solution—five grains to an ounce of water, one drop for a dose representing approximately $\frac{1}{100}$ grain of the sulphate of atropin. Beginning with one drop three times a day, it is gradually increased by one drop daily until the physiologic effects (dryness of the mucous membranes and persistent mydriasis) become manifest. It is a superb vagus antispasmodic, and curtails the swelling and secretions of the bronchial mucosa.

Iodide of potash is another valuable drug in diagnosis. In suspected apical lung affections, where a modified respiration is present without rales, the latter may be produced artificially by the administration of the iodide. The same agent will also intensify the auscultatory phenomena of an old pleuritis by augmenting the pleural transudate. *Bromoform* is also an aid in diagnosis. There are many spasmodic coughs in adults as well as children which are practically cases of pertussis, even though the characteristic whoop is absent. In such atypical instances bromoform may aid us; and while it is not a specific in pertussis, it has a decided action on the paroxysms, such as is possessed by very few drugs.

The troublesome hacking cough often present in the tuberculosis state is, as a rule, unattended by expectoration, and this deprives us of a most important means of diagnosis. In such cases I avail myself of a manœuvre somewhat similar to that resorted to by genito-urinary surgeons; the latter before deciding whether a urethral secretion is free from gonococci, inject into the urethra a fluid which excites supuration, or at any rate augments secretion. If a re-examination of the urethral secretion shows no gonococci, the danger of the subject transmitting the disease is slight. My method does not aim to excite suppuration, for if this were the object it could easily be attained by intratracheal injections. What we want is to augment and to expel the bronchial secretions. The *creosote vapor-bath*, as suggested by Chaplin (*British Medical Journal*, 1895, p. 1371), answers this purpose admirably. The effect on the patient is to induce violent cough with profuse expectoration. Even in lung tuberculosis where the tubercle bacilli are few or

absent, they often appear or become augmented in number after the creosote bath.

In some instances of persistent cough where I could obtain no expectoration for examination, I could obtain such material by subjecting my patients to a pneumatic cabinet treatment. Forced inspiration of relatively compressed air produces lavage of the bronchial tubes. There is no organ nor region of the body, which has not been held responsible for an extra pulmonary cough.

THE SKIN.—I have frequently demonstrated the influence of cutaneous irritation on the lungs (*Medical Record*, April 23, 1899; *Medical News*, January 7, 1899). There are susceptible individuals who upon the slightest exposure to a draught will cough. The cough is not provoked, as many suppose, by the inhalation of cold air, for susceptible persons cough even after immersion of the hands or feet in cold water. Although accustomed for years to a morning cold bath, yet every time I enter the bath I suffer from an attack of coughing. I have tested a number of persons to determine whether particular regions on the surface of the body were sufficiently susceptible to an irritant to cause cough; in a few instances only was I able to mark out any such regions, which for convenience I have designated as *tussogenic zones* (*Medicine*, August, 1899). As an irritant, a current of cold air from an air-pump was directed on different parts of the body. Tussogenic zones were most frequently found on the anterior surface of the neck in the course of the distribution of the pneumogastric. All those in whom the zones were found stated that upon exposure to a draught, cough followed. The manœuvre just suggested may be applied in the diagnosis of cutaneous coughs.

THE EAR.—For a long time it has been known that irritation of the external auditory meatus, through the auriculo temporal branch of the fifth nerve, would excite coughing. The introduction of the aural speculum will not infrequently excite this reflex. According to Fox, more than 17 per cent. of individuals cough after irritation of the external meatus. As a rule, in ear cough, an examination shows the presence of a foreign body, and the cessation of cough after its removal confirms the diagnosis.

THE NOSE.—Irritation of the trigeminal branches in the nose is often a cause of cough. The cough areas in the nose are situated about the anterior and posterior ends of the in-

inferior turbinated bodies and that part of the septum lying opposite the latter. The application of the sound to the abnormal or even normal mucosa, in an indefinite percentage of persons, causes cough. The correction of a hypertrophic rhinitis, the removal of polypi and other anomalies, often cures a troublesome, persistent cough. A thorough rhinoscopic examination will, as a rule, establish the diagnosis of nasal cough, yet we must not be led astray by every anomaly of the nose. Deviations of the septum, for instance, are estimated to be present in 90 per cent. of all adults. *Cocaine* and the *sound* must be employed as accessory agents in diagnosis, if the nose be suspected. Employ a moderately strong solution of cocaine, first in one nostril and then in the other, and note if the cough is in any way influenced. Having attained positive or negative results, our next object is to employ the probe, eliciting, if possible, the cough areas. Having found one or more cough areas, each is cocaineized in turn and again probed; if no reaction follows, there is presumptive evidence of a nasal cough.

NASOPHARYNX.—From this region coughs are less frequently produced. The usual causes are adenoids and the discharge in nasopharyngeal catarrh. In children, a cough dependent on adenoids is comparatively common. The cough is worse in damp than in dry weather. The *morning cough*, in which large quantities of sputum are brought up, is frequently a symptom of nasopharyngeal catarrh. It has not infrequently happened that I was unable to say positively whether the sputum arose from the nasopharynx or deeper down in the respiratory tract. Such a question appears a priori to be superfluous, yet if one has presumably cured a bronchitis, but cough and expectoration still remain, one is often at a loss to say whether the nasopharyngeal catarrh is responsible for it. This question could be decided by treatment of the catarrh, but a diagnosis thus established is a tedious matter. Repeated microscopic examinations show that a diagnosis may be arrived at more easily; not that there are any characteristic microscopic constituents in the sputum from the nasopharynx, as one would be led theoretically to believe, but because the general characteristics of the sputum correspond with the secretion from the nasopharynx. To illustrate: A patient presents himself for the relief of a chronic cough; an inspection of the nasopharynx shows secretion; some is removed, and the elements under the microscope are noted. If the sputum is subsequently brought

to us by the patient, this is similarly examined, and if the microscopic elements correspond with those from the nasopharynx at a previous examination, we are justified in concluding that the expectoration is largely of nasopharyngeal origin.

THE PHARYNX.—Acute and chronic diseases of the mucous membrane of this region may give rise to cough. A follicular pharyngitis especially excites a cough. Along the lateral walls of the pharynx we find a chain of lymphoid tissue. This may be involved in an inflammation known as *pharyngitis lateralis hypertrophica*, and not uncommonly excites cough. This mass of lymphoid tissue, being partially hidden by the pillars of the fauces, often escapes attention, unless with a retractor the palatine arch is drawn forward. Here, again, the probe and a solution of cocaine aid us in diagnosis.

THE TONSILS.—Hypertrophy of the tonsils, as well as the presence of cheesy matter or concretions in the crypts, sometimes causes an irritating chronic cough. Adhesions of the tonsils to the pharyngeal pillars have been known to be responsible for a cough.

UVULA.—In my experience, an elongated uvula is the most frequent cause of extra-pulmonary coughs. Inspection shows the uvula of such length that it may touch the tongue, or in the recumbent position its end may touch the epiglottis, or even reach the entrance of the larynx. Persons who suffer from an elongated uvula complain of a foreign substance in the throat, and they have a constant desire to swallow, as if to rid the throat of some extraneous body. The cough from an elongated uvula is not infrequently associated with nausea and vomiting, the latter symptoms arising from contact of the uvula with the back of the tongue. Laryngospastic symptoms may develop at night, for it is at this time, when the patient assumes a recumbent position, that the cough is most pronounced. The patient soon learns intuitively that the violent paroxysms of coughing may be inhibited by sitting up in bed, or leaning forward. A moderate amount of expectoration is nearly always present, owing to the associated pharyngeal catarrh. Inspection of the throat often shows no real elongation, because some patients involuntarily contract the palate and uvula; therefore they must be taught to relax the parts. The application of cocaine aids in diagnosis. Limiting the application of the

cocaine to the uvula alone is of little value; it must be applied to the adjacent structures, from which the reflex act is started. Amputation of the uvula is the only cure; if followed by a cessation of cough the diagnosis is made.

LINGUAL TONSIL.—Found as an enlargement at the base of the tongue, either in the center as one mass, or on either side of the median line in two or more parts. It is a mass of lymphoid tissue, corresponding in structure to the faucial and third tonsil. When the lingual tonsil hypertrophies, the chief reflex symptom is cough. As a rule, the cough is accompanied by little or no expectoration. Like the cough of an elongated uvula, it is worse when the patient lies down. There is a sensation of a foreign body in the throat which does not disappear on swallowing. The cause of hypertrophy is similar to that of the other tonsils, and the affection preponderates in women. Diagnosis is made with the laryngoscope. The tonsil is found to be red and swollen. We find it partially or completely filling the glossoepiglottic fossa, and sometimes encroaching beyond the free border of the epiglottis. If the lingual tonsil is suspected we may employ cocaine locally.

The reflex act of coughing may be discharged from the *teeth, esophagus, liver, spleen and pleura*. Recently I had under observation a hysterical woman with complete anæsthesia of the fauces, who suffered from esophagisms. This was a suggestive case for studying the esophageal cough. Upon introduction of the esophageal sound, cough was invariably produced, yet when the esophagus at its beginning was cocainized no cough followed the introduction of the sound. Palpation of an *enlarged liver or spleen* is occasionally followed by cough, which can no doubt be referred to the peritoneal covering of those organs innervated by branches of the vagus. Nor must we deny the role played by the pleura in the production of coughing. The individuals suffering from *acute pleuritis* will cough with the slightest pressure of the stethoscope over the affected area. The same phenomena can not infrequently be evoked in normal persons. It has often been my experience in cases of acute pleuritis, where opiates were of little avail in controlling a persistent cough, to find that strapping the affected side would give almost instant relief to the troublesome cough. The so-called *stomach cough*, while not supported by the experiments of Kohts, is largely corroborated by clinicians. Some attribute the stomach cough to a pharyn-

gitis complicating the stomach affection, whereas others contend that the eructated gases reaching the larynx induce coughing. What deserves recognition, however, is the fact that many persistent coughs subside when treatment is directed toward the gastric disease. Gynecologists recognize a cough which is discharged from the uterus and contiguous structures. Local treatment, especially by pessaries, act quickly when retroversion, prolapse, etc., are complications. *Hysteria* has a distinctive cough, which is loud and barking, and gives the impression of being produced with the object of attracting attention. Associated with the hysterical aphonia and other stigmata of hysteria is readily recognized. Attention has been directed to a *nervous cough*, independent of hysteria. Such a cough naturally follows a catarrh of the larynx or pharynx, and persists after the original trouble is cured. It is difficult to explain the nervous cough, otherwise than by supposing that the reflex circuit remains in a condition of increased irritability.

The diagnosis nervous cough is frequently an admission of ignorance, but more often it is an error in diagnosis. I can recall many cases of incipient pulmonary tuberculosis, in which the cough was referred to as nervous. With our advanced methods of diagnosis the nervous cough will soon be relegated to oblivion. I recall a patient who suffered from a chronic cough. She ran the gamut of specialists with diagnosis, ranging from tuberculosis to neurosis. Her uvula was amputated, her nasal mucosa cauterized and the turbinates removed; a stomach specialist washed her stomach, and a gynecologist curetted her uterus, yet the cough persisted. At last, a throat specialist discovered a granular pharyngitis, and, with a probe, noted that coughing could be provoked by touching the granules. The latter were cauterized, resulting in a permanent cure. It is undoubtedly true, that mistakes in diagnosis are less often due to errors in misinterpretation than to an incomplete examination of our patients. Sir William Savory tritely remarks, "Consciousness of one's ignorance may do much to avert the errors of carelessness, and he who has confidence in his own judgment should of all men be most careful in inquiry."

THE LARYNX.—A cough dependent on laryngitis readily yields to the treatment of the underlying cause. Spraying the larynx with a cocaine solution will temporarily inhibit the cough. A tablet of cocaine (gr. 1-20) placed on the back of the tongue is also serviceable. Laryngeal insuffla-

tions of orthoform give more permanent results. If we freeze the skin with a spray of rhigolin or methyal chloride over points on either side of the neck corresponding to the entrance into the larynx of the superior laryngeal nerves and repeat the manœuver daily we are able to reduce laryngeal coughs to a minimum. The same method favorably influences laryngeal spasms, and will frequently cure aphonia after a single application. In many phthisical individuals cough is frequently provoked by the injection of food. Normally in every act of deglutition the epiglottis completely closes the larynx. If there is tuberculous infiltration of the epiglottis the borders of the latter become indurated and irregular, resulting in incomplete closure of the larynx, so that fluid or food enters the latter and induces coughing. *Aneurism of the thoracic aorta* may produce a paroxysmal cough by pressure upon the trachea, or bronchus, or by pressure upon the recurrent laryngeal nerves. The character of the cough in the latter instance is of a barren ringing character.

In *heart disease*, the cough may be varied in origin. Sansom found a cough present in 45 per cent. of his cases of valvular heart disease. Pressure upon the bronchus or pneumogastric nerves is responsible for the cough in pericardial effusion, whereas in failing compensation a low grade bronchitis develops in consequence of passive congestion of the lungs. In the latter case *digitalis*, or some heart excitant like *caffein*, by relieving the circulatory embarrassment will frequently inhibit the cough. *Tubercular enlargement of the bronchial glands* frequently produces a spasmodic cough, suggestive of pertussis. The diagnosis of this condition may sometimes be made by the sign of Smith and Hare, viz., by directing the patient to throw the head well back, and placing the stethoscope below the suprasternal notch, a *purring sound* will in most cases be heard during respiration. This sound is supposed to be due to the pressure of the glands upon the venous trunks. A method, which to me is of more significance in the recognition of enlarged infratracheal and bronchial glands, is that of Ewart. According to the latter the fifth dorsal spine is invariably dull. This dullness extends for a short distance on either side of the middle line, but more to the right than to the left. If the shape and size of this square patch of dullness be much modified one may suspect enlargement of the glands in question.

We speak of a *winter cough* in individuals with chronic bronchitis whose cough appears with the cold weather

and lasts until the following summer. A chronic cough confined to the early morning hours, with much expectoration may be caused by tuberculosis with cavitation, pulmonary, abscess, empyema in communication with a bronchus or bronchiectasis. Cough induced by change in the position of the patient arises on account of alteration in the position of a pleural exudate, or by establishing more direct communication with a lung cavity. A cough arising when the patient first enters his bed is often a *skin cough* caused by the cold sheets.—*Medical Fortnightly*.

THE FUTURE TREATMENT OF HAY FEVER.

By H. HOLBROOK CURTIS, M. D., of New York.

* Read before the American Laryngological, Rhinological, and Otological Society, May 25, 1901.

¹ *Medical News*, July 7, 1901.

On June 7, 1900, I read a paper entitled "The Immunizing Cure of Hay Fever" before the American Medical Association at Atlantic City. In this paper I gave an account of experiments which for two years I had been making of internal and hypodermic exhibition of watery extracts of flowers. A resumé of what I said at the June meeting is as follows:

Some two years ago I reported to the Section on Laryngology of the New York Academy of Medicine, the results of some experiments that had been made on a patient who, from childhood, had suffered from violent attacks of neurotic coryza, with most severe constitutional complications during the paroxysm. These attacks, simulating the most severe type of an attack of hay fever, completely prostrated the patient, and usually lasted for about two weeks. The patient, who was an unmarried woman of thirty-five, frequently presented this picture—the finger nails were cyanosed, the extremities were cold, and a state of collapse supervened which required the most vigorous measures to sustain life. These attacks were brought about by an exposure to the perfume of flowers; and so susceptible was she to these odours, that to pass a florist's shop in the street would be sufficient to produce a paroxysm. It was on this patient, who was from one of the best known families in St. Louis, that I determined to try the effect of immunization, by giving internally and hypodermically the watery extract of certain flowers and their pollen. I com-

menced by giving the sterilized infusion of roses, and after two weeks found that the patient could tolerate that flower in her bedroom. I then tried the violet and lily-of-the-valley, and was equally successful with each flower. After I had immunized her to three flowers it was found that adding others to the bouquet always kept at her bedside, did not produce any bad effect; and since then there has been no recurrence of the paroxysms that heretofore rendered her life unendurable. This patient, however, was of so pronounced a neurasthenic type—she was also tuberculous—that I made a very guarded report of the case before the Laryngological Section of the Academy at that time, preferring to wait for more experience with other cases before communicating further on the subject.

Another patient once told me that it was impossible for her to go into the ipecac department of a drug house, where she was employed, without getting a violent "crying cold with asthma," and that when she worked in ipecac she had to take some tincture of syrup in drop doses for several days before she came in contact with the drug—a precaution which she found always prevented an attack. This young lady informed me that a friend of hers was likewise affected, and also benefited by the same precaution. It was the remembrance of this case that originally suggested to me the possibility of an immunizing treatment for hay fever. A point of especial importance is the curious fact that not only is immunity from attack secured by this mode of treatment, but also after the onset of the pollen or flower fever and the paroxysm is at its height, the attack is at once lessened and often controlled by the exhibition of the causative drug. I have found this to be the case with golden rod and lily-of-the-valley, and also with ragweed corasthma. A Philadelphia physician, who is affected with a violent coryza by the odour of salicylic acid has recently told me that this disturbance does not occur while he is taking the salicylate of sodium.

The experiences narrated above prompted me last summer to obtain through a drug firm the services of a botanist to secure the flowers and pollen of enough ragweed to make an experiment on a large scale this year on so-called hay fever, and to determine whether the hypothetical deductions from the experiments I have already conducted are truly as important as I believe them to be. The tincture and the fluid extract are the solutions most available. In

my recent experiments I have discontinued the use of hypodermic medication.

The drugs were delivered to me so late in August of last year that the preventive treatment could not be carried out, but in no case of the eight or ten on which I tried the treatment at the commencement of the attack was there anything but remarkable results even when the enemy had been in full control for two weeks.

Permit me to append a letter from a Brooklyn clergyman, which is a good sample of the general estimation in which the drug is held by some of the worst cases on record :

GRACE CHURCH, UTICA, N. Y..

December 12, 1899.

MY DEAR DR. CURTIS : Before I left Brooklyn I wanted to write and tell you how deeply I am indebted to you for the relief which you gave me from hay fever during the past summer and autumn, but the rush of moving prevented my doing so. However, you must listen to my refrain, and it may interest you.

In August, 1889, I had my first attack of hay-fever, when I was living in Wethersfield, Conn., from which place I removed to Brooklyn at the close of the month just mentioned. Regularly, every year since, on August 19, except in 1894, when it came on August 21, the hay-fever appeared. In three days my eyes would be so inflamed and bloodshot, that a few minutes with the newspaper was as much reading as I could do ; my nose became swollen, and the edges of the nostrils had to be rubbed with salve after the paroxýsms of sneezing to prevent them from cracking open. At least one-half of the time I could not breathe through either nostril, and panted with open mouth like a dog ; in bed at night I had to prop myself up with pillows to catch any sleep at all ; I had no appetite ; no anything. This condition would last into October, taper off in November, gradually disappearing after the arrival of the killing frosts. My attack this year had been running several days before I received your medicine, and I was astonished at the abatement of the enemy in forty-eight hours. You know the rest of the story—good appetite, sleep at night, and only enough of a touch of hay fever for me to know that I was prone to the attack of the fiend.

Perhaps you will now understand why I consider myself to be

Most gratefully and sincerely yours

B_____.

In the title of this paper, hay fever is used in its popular sense, but the malady to which the treatment I have suggested applies is ragweed corasthma. I have several cases on record of golden rod and lily-of-the-valley corasthma, which have been cured by *solidago odora* and *convallaria majalis*, respectively, in three or four days ; but, while these are interesting as contributive evidence, the old enemy, ragweed, is the recognized king of pollens, whose term of office begins August 12 to 20 in these latitudes, and whose cruel reign is only ended by the first frost.

If my theory be correct, that this "rhinitis vasomotoria-periodica" or "corasthma ambrosiæ" may be prevented by giving from two to ten drops of the tincture or fluid extract of *ambrosia artemisiæfolia* t. i. d. in water, during the two weeks preceding the paroxysm, I shall consider that I have heralded what I believe to be a great discovery, with becoming modesty. If, on the other hand, the results I have obtained are not verified by others, I may only say that greater men and more scientific observers have been misled by initial results that time did not substantiate. I should be pleased, however, to give to any physician who will conscientiously aid me in investigating the subject, such directions that he may experiment for himself upon severe cases, in order that a collection of reports from disinterested physicians in widely separated localities may be of benefit to the cause of scientific research.

In August, 1900, at my suggestion, the fluid extract of ragweed was combined with aromatics, in order to disguise its unpleasant taste and make it more palatable to the patient. With every bottle sent out in reply to inquiries from the profession, a blank, which read as follows, was enclosed :

LIQUOR AMBROSIA.

FOR THE PREVENTION OF HAY FEVER.

This preparation is used to immunize those cases which, in these latitudes, are affected about the 15th to the 20th of August.

Cocaine must not be employed as an adjunct.

As this treatment, while affording extraordinary relief to the few cases upon whom it has been tried, is still in the experimental stage, the physician who uses this bottle of medicine will confer a favour by returning this blank,

properly filled out.

Patient (male or female) ?

Age ?

How many previous attacks ?

Attacks generally commenced ?

Attacks generally ended ?

Was asthma present ?

Was nose occluded during attack ?

Was nose perfectly free before attack ?

Has the patient any intercurrent disease ?

Does patient use alcoholic beverages ?

Does patient smoke excessively ?

Do other flowers than ragweed cause attacks ?

Did patient's father or mother have hay fever ?

Do patient's brothers or sisters suffer from the malady ?

—*New York Medical Record.*

Progress of Medical Science.

MEDICINE AND NEUROLOGY

IN CHARGE OF

J. BRADFORD McCONNELL, M.D.

Associate Professor of Medicine and Neurology, and Professor of Clinical Medicine
University of Bishop's College; Physician Western Hospital.

HOT DRINKS IN DYSPEPSIA.

Chronic indigestion in sure, sooner or later, to be followed by disturbance of the motor apparatus of the digestive tract, usually affecting more particularly the stomach, which reacts less readily to stimulation. There results a condition of impaired secretion, plus a greater or less degree of muscular atony, which must be combatted at an early stage if we wish to avoid an incurable degree of gastric dilatation. Among the remedies at our disposal hot drinks have, of late years, attained considerable vogue. The ingestion of tepid fluids exerts a marked sedative action on the gastric mucous membrane and often relieves the painful sensations following meals in chronic dyspepsia. Less recognized, perhaps, is the influence of hot drinks on the motor functions of the stomach. In the ordinary course of events nothing remains in the stomach six hours after a meal, and the presence of alimentary débris after that period indicates the presence of some degree of muscular paresis. This condition of things

may be greatly benefited by the use of hot water with or immediately after meals ; but in chronic cases permanent benefit can only be obtained by perseverance, the treatment being methodically carried out for some months. As might be anticipated, the hot water treatment does not ameliorate the secretory defects in the same degree as the muscular weakness, but by maintaining the stomach in a hygienic condition we may, at any rate, hope to check further degradation of the peptic glands. The temperature of hot drinks should be from 105° to 110° F., and their employment is especially indicated in cases of hyperacidity associated or not with some degree of gastric dilatation.—*Medical Press and Circular*.

INFANT FEEDING.

According to the author, there is a marked diversity of opinion regarding the number of feedings to be administered to infants. It is certain that too frequent feeding is accompanied by disastrous results to the child. In the children's clinic of Breslau, infants receive but five feedings in 24 hours, and while they are restless and fretful in the beginning, they gradually quiet down and become accustomed to this régime. The author believes that a breast-fed infant ought not to be nursed any sooner than every three and a bottle-fed baby every four hours. This conclusion he bases upon the facts that in the former the stomach is not emptied before one and a half hours after a feeding, and that it contains free hydrochloric acid in one and a quarter hours; in the latter the same process requires over two hours.

The author attempts also to investigate the question as to whether or not there is an increase of absorption of albumin from the food administered at longer intervals. He found no difference in this direction, and, therefore, believes that the detrimental effect of frequent feeding is due mainly to the direct mechanical injury to the stomach.—Dr. Arthur Keller, *Centrall. f. inn. Med.*—*Post-Graduate*.

PNEUMONIA.

Dr. Nathan Raw remarks that patients are more often damaged than helped by the promiscuous drugging which they receive in this disease. At the outset three to five grains of calomel, followed by a saline every three or four

hours, with which two grains of quinine are included, is beneficial. The ice-bag, or even a mustard and flaxseed poultice, may be indicated for pain. To digitalis much has been been attributed, but on the whole it has not been a success. If the heart's action becomes very rapid, with a quick and irregular, soft pulse, it sometimes does good when given in large doses, say fifteen or twenty minims of the tincture ever two hours until two drams are taken, or digitalin hypodermatically, one thirtieth to one twentieth of a grain, has a marked temporary effect in tiding over the patient during a critical period. Ten grains of chloral with four drams of the infusion every four hours gives the patient much relief from delirium and sleeplessness. Objection is made to antipyretics, although sponging the surface with ice-water is recommended. Ammonium carbonate acts as a stimulant and expectorant, but readily disturbs digestion, and must then be discontinued. In progressive cardiac failure, brandy in from six to twelve ounces every twenty-four hours is indicated. In many instances alcohol in any form is not required. Strychnine is a most valuable cardiac tonic, and given hypodermatically in doses of one twentieth or even one twelfth of a grain will sometimes have a miraculous effect upon the heart. His experience with oxygen has not been, on the whole, good. The prophesy is made that the treatment of the future will be the antitoxic treatment, used early, so as to abort the disease by destroying its toxins.—(*Med. Press and Circular*, 1900, No. 3181, p. 417.)

TREATMENT OF PNEUMONIA.

William Porter, in the *Philadelphia Medical Journal* of December 15, 1900, says that venesection should be followed by the injection of normal salt solution in the treatment of pneumonia. The abstraction of blood relieves the right side of the heart, and at the same time gets rid of a certain amount of toxin, and the salt solution increases the pulmonary circulation and the oxygen-carrying power of the blood. The treatment is especially applicable to the lobar form of pneumonia. The writer's deductions are so far largely theoretical, though the treatment has been applied in a sufficient number of cases in the City Hospital in St. Louis to show that it is worthy of more extended study. Bleeding is commonly performed as soon as the diagnosis is

established, which is usually within four days of the initial lesion, and sometimes earlier. The amount of blood abstracted is not large, but this is repeated in case the symptoms are urgent; usually from eight to twelve ounces will give relief in the average case. The salt solution is injected subcutaneously, and it is believed that this is the preferable method, because the effects are slower; in an urgent case he would not hesitate at transfusion.

The solution employed is a modification of Jennings', in which the potassium chlorate is lessened and the amount of sodium chloride increased. There is also a smaller amount of the phosphate. The following formula is used:

Sodium chloride.....	30 grains.
Potassium chlorate.....	60 grains.
Sodium sulphate.....	60 grains.
Sodium phosphate.....	40 grains.
Sodium carbonate.....	60 grains.
Distilled water.....	q. s. ad 6 fluid ounces.

One part of this solution in 60 of distilled water.

The writer advances this method as an addition to our ordinary means of treating pneumonia, which must not be neglected. Care must be taken to favor elimination by the skin, bowels and kidneys, and above all the heart must be supported. Oxygen is a valuable remedy, and its favorable effects are greatly enhanced by the venesection and the saline solutions.

SUGAR-FREE MILK AS A FOOD FOR DIABETICS.

R. Hutchison has devised a milk preparation which contains all the original casein and salts along with a certain additional proportion of fats. It is practically sugar-free, and appears like an unusually rich, ordinary milk. The following diet-schedule is suggested:

BREAKFAST.—Bacon; eggs scrambled with butter; fish with butter sauce, or some form of cold meat; toasted protene bread with plenty of butter; and café-au-lait made with sugar-free milk, and sweetened with saccharin if desired.

DINNER.—Soup (without vegetables or other carbohydrate-containing matter); fish (preferably one of the fatter sorts); meat with green vegetables and melted

butter; custard of eggs and sugar-free milk; and cheese with protene bread and watercress. Beverage: whiskey and water, or any dry, natural wine.

SUPPER.—A cup of well-made beef-tea; eggs in some form—e.g., as an omelette, with as much butter as possible; fish or cold meat; and cheese with protene bread and butter, and a salad with plenty of salad oil. Beverage: a glass of sugar-free milk.

The rest of the milk, sufficient to make the total daily allowance up to three pints, should be taken as a beverage between the chief meals.—*The Lancet*.

ACUTE CARDIAC FAILURE.

Richard Douglas Powell, in the Cavendish Lecture, mentions among the causes of this accident direct injury, as when a healthy man ruptures, during a violent exertion, one of his aortic cusps, the displacement of a clot from a systemic vein, and cardiac failure from over-taxation. There are always two factors at work, direct fatigue of the nervo-muscular tissues and a poisoning of the blood from an auto-metabolic source. Among the concomitants of heart distress or failure during violent exercise, as running, vomiting is one of the most common. One of the most constant after effects is anæmia. Gastro-intestinal attacks, vomiting, and diarrhœa are not uncommon occurrences in those who, habitually leading a sedentary life, suddenly take to exhausting exercise. The heart of a child between six and twelve is, according to the author, relatively hypertrophied, which is to be ascribed to the ceaseless activity at this age. A point often forgotten in the case of young children is their special aptitude for short spells of active exercise, but their complete unfitness for prolonged monotonous exertion. The treatment of acute cardiac failure from overstrain involves a few weeks of rest and many months of careful supervision. In many there is a feeble lung capacity, and for such cases well ordered respiratory exercises are of great utility.

The following are the special factors in acute cardiac impairment in acute disease: (1) maloxxygenated and otherwise contaminated blood-supply to heart muscle and nerve; (2) excessive weight of blood burdening the heart; (3) exhausted innervation from sleeplessness and physical cardiac fatigue; (4) positive obstruction to the flow of blood through the lungs; and (5) changes in the texture of the heart muscle incidental to the disease and especially to the

pyrexia. Now the first two indications are undoubtedly met by depleting the blood volume from the venous side by attention to secretions, the occasional use of mercurials, careful limitation of the food taken in place of the over-feeding often to be observed, and in some cases a small blood-letting.

Oxygen inhalations are also of service. For the third and fourth indications in the foregoing list, we possess no better remedy than strychnine, which is best given by syringe in case there is much abdominal distention. The fever should be kept within bounds by any well-approved method.—*The Lancet*.

THE ABORTIVE TREATMENT OF PNEUMONIA, CATARRHAL AND CROUPOUS IN INFANTS AND CHILDREN.

H. Illoway feels certain that in infants and children the pneumonic process can be arrested at its outset, and more than that, that we have the means and have long had them, wherewith to do it. He proceeds to give a number of histories of his own cases. He has had great success in the use of aconite and veratrum viride. Again in other cases with tumultuous heart action the writer has used digitalis (the infusion or rather decoction) with satisfaction. He believes that the combination of the tincture of aconite root with the tincture veratrum viride (Norwood's) is the more powerful therapeutic measure, and the one he would resort to preferably. He considers the repetition of the medicine at short intervals a vital factor in the achievement of success.—*Pediatrics*, December 15.

SUMMER DIARRHŒA.

Dr. Wm. B. Booker, President of the American Pediatric Society, at its recent session, made the subject of his address "Summer Diarrhœa." He gave an excellent and exhaustive resumé of its literature, going back to the eighteenth century, when mention was first made of it and tracing it along in its evolution, until it became a well-recognized entity.

Summer diarrhœas have always held an important place in the practice of medicine, and especially so in the great cities, where the mortality from these diseases is great during the protracted heated terms, like the one now being ex-

perienched in this country east of the Rocky Mountains. In New York special attention is given to the clinical study of all such cases.

Kerley recently reported a study of 550 cases (*Medical Record*, page 1057, June 26, 1901) gathered from dispensary practice during June, July, August and September. "Of these children 77 were under three months of age. It was noted that 20 were fed on proprietary foods, and 59 upon condensed milk. Four hundred and ninety nine were treated to the end, of whom 10 died."

An invariable rule in treatment was to stop all milk at the outset, to relieve the infected gut; to treat vigorously, whether mild or bad, and to explain to the mother carefully and in writing what was to be done. The four drugs found, to be reliable, were calomel, castor oil, bismuth and opium; calomel particularly when vomiting occurred.

In the discussion of this report Holt advised rest and irrigation. Winter advocated judicious use of alcoholics. Saunders advocated broths first as diet, and beef juice later. He also said, that chloral was one of the best drugs for pain and should be combined with aromatic rhubarb. He said atropine, a single dose, would stop serious discharges.

The modern trend of treatment of the summer diarrhœas in childhood is toward simplicity. It is perfectly evident to every physician, who will stop to think, that if we will try to assist nature we will be sure to render assistance. The first indication is to remove the offending material in the alimentary tract, which too frequently has been locked up by the parents using astringent drugs, etc., and to this end it is always best to give some laxative, after first being sure that the stomach is unloaded. Castor oil combined with some of the aromatics is always a reliable agent. It can be given every hour until the bowels move freely, then the colon may be irrigated, if necessary—this should not be overdone—once or twice a day should be sufficient. After this cleansing has occurred and diarrhœa still persists then antiseptics, and astringents are indicated. Of these bismuth takes precedence over all others, and it should be given liberally. Salol is indicated also and the combination of bismuth and salol with compound tincture of lavender or camphor water is excellent.—*Medical Fortnightly*.

SURGERY.

IN CHARGE OF

ROLLO CAMPBELL, M.D.,

Lecturer on Surgery, University of Bishop's College ; Assistant-Surgeon, Western Hospital ;

AND

GEORGE FISK, M.D.

Instructor in Surgery, University of Bishop's College ; Assistant-Surgeon, Western Hospital.

PAINLESS HYPODERMICS.

The spot where the needle is expected to enter is touched with a toothpick dipped in strong carbolic acid, a white spot immediately appears (due to coagulation of the albumen in the tissues). Shortly after a perfect anesthesia of the spot is manifest, and the hypodermic needle can be pushed through the skin without pain at this point, and the infiltration of the tissues begun. If a large arc is to be injected several spots are marked with the toothpick dipped in the strong carbolic acid, the needle being inserted through these points.—*Med. Standard.*

STIFFENED JOINTS.

In two cases of stiffened joints where the inability to move the limb has appeared to arise from rigidity of the tendons and muscular sheaths. I have injected, subcutaneously, olive oil into the structures, and with some success. I find that a fluid drachm of the oil can be injected around the knee-joint without causing any after inflammation or discomfort. In one instance, where the elbow was operated on in this way, the young woman obtained, for the first time, some degree of movement after six months' entire fixation from rigidity.—WARD, in *The Asclepiad*.

[Sweet almond oil is preferable to olive oil, as the latter is seldom had in a pure state in this country.—ED. *Detroit Medical Journal*.]

RECTAL EXAMINATIONS.

One point must especially be borne in mind in examining the rectum, viz., prevention of fecal matter settling between nail and skin. Many physicians simply lubricate the examining finger with vaseline or soap, and then proceed, with the result that the finger smells afterwards for a long time in spite of the most vigorous scrubbing with brush, etc. The

cause of this is that the space under the nail is unprotected from the entrance of fecal matter.

To prevent this proceed as follows: After lubricating the finger with plain castile soap scrape the nail on a piece of said soap, so that a quantity of same enters the subungual space; after examining the rectum it will be found that no fecal matter has entered the space under the nail, and the finger can easily be made clean,—*Med. Standard.*

CHRONIC POSTERIOR URETHRITIS.

Dr. George Walker, in the *Maryland Medical Journal*, is very favorably impressed, and has gotten satisfactory results from the use of the curette in posterior urethritis. Preparatory to the operation the urethra is thoroughly irrigated with a one four-thousandth bichloride solution, and then a four per cent. solution cocaine is instilled and held five minutes. By illumination the diseased spot is localized. The curette is next applied, and the portion in view thoroughly scraped, so that the diseased tissue at this place is thoroughly removed, and along with it the epithelial layer and submucous tissue if necessary. After this has been done a ten per cent. solution of nitrate of silver is applied to the spot by means of a pledget of cotton. The bleeding is slight, and the operation, where cocaine has been properly and freely used, is without pain. Often very obstinate and long-standing cases have entirely cleared up after three curettements.

A NOTE ON THE SURGICAL TREATMENT OF SPINA BIFIDA.

Lewis Marshall describes his method as practiced on a baby a few months old. The tumour was about the size of a tangerine orange. An incision, at first small, to admit of the slow escape of the fluid, was made in the middle line. The child lay with the head low and the buttocks raised. When the sac was empty the inner lining was dissected up on either side as far as the spine. Then this was turned inwards and a Lambert suture was applied as in suture of the bowel. Then sufficient external skin was placed over the inner pad and secured by interrupted sutures of silkworm gut. The dressing used was collodion and cyanide gauze, applied in thick successive layers. In the after-treatment, the raised position of the buttocks should be maintained for the first week in most cases. Of course there may develop contraindications to this.—*British Medical Journal.*

NEW METHOD OF SUTURE FOR THE ANASTOMOSIS OF THE CUT VAS DEFERENS OR URETER.

Antonio Ferraro, in his experiments on animals, cuts the vas deferens, and into one of the stumps introduces a sewing needle, or slender stiletto, and at a certain determined distance from the extremity of the stump makes a transverse incision of half the circumference of the duct. From the middle point of this incision he makes a longitudinal one which reaches to the extremity of the stump. The same procedure is repeated on the other cut portion of the duct, and there are now two quadrangular flaps, which being placed with their mucous surfaces in contact will be found in perfect coaptation, while the lumen of the duct instead of being constricted is increased. The same procedure can be applied to the ureter when necessary.—*La Riforma Medica*.

SURGICAL HINTS.

(From the International Journal of Surgery.)

It is a good thing to remember that surgical needles require sharpening about as often as scalpels, and that the use of a bone and a little emery powder will restore to usefulness many needles in an apparently hopeless condition.

It is well to remember that a drainage tube is a foreign body, and hence an evil. Clean surgery and proper attention to hemostasis reduce considerably the number of cases in which drainage is indicated, and it seems to be the tendency of the best surgeons to do the least draining.

In crushing accidents in which the limbs have been caught in machinery it is very difficult to cleanse the wound properly, owing to the fact that the parts are much covered with grease due to lubricating substances. Ordinary gasoline is an excellent thing wherewith to remove this grease; it causes no pain, dissolves away the grease, and leaves a clean surface upon which watery solutions of antiseptics can exert their full power.

Children who are prepared for operation must not be kept as long without food prior to anæsthesia, as is proper in adults. Children weaken rapidly from hunger, and it is best to give them easily digested food up to three or four hours before the operation. As in the majority of instances they

need not know that an operation is contemplated, there is none of the inhibitory effect upon digestion, caused by fear, that is so often observed in adults.

It is important to remember that children, especially in crowded, poor districts, sometimes have empyema without even complaining of chills or showing a rise of temperature, and that the disease is often so insidious as to lead simply to general ill-health long before the parents become alarmed at the child's condition. Any child that has become gradually run down in health should be stripped and carefully examined for empyema, when no other cause is evident.

TREATMENT OF HEMORRHOIDS.

Dr. J. P. Tuttle, as noted in *Amer. Med.*, believes that in many acute cases of internal hemorrhoids, local and general measures should be resorted to rather than operative procedures. Cold water enemas once or twice a day are of great benefit in order to produce an easy movement of the bowels, and to contract to some extent the blood vessels. Injections of mild non-irritating astringents, such as the fluid extract of krameria, fluid extract of hamamelis, or *Pinus Canadensis*, will have a very soothing and curative influence. Suppositories of ichthyol, tannic acid and belladonna are of great benefit, especially if there is an eroded condition of the parts. Resinous cathartics, such as podophyllin, aloin, gamboge, etc., irritate the parts and should not be used. Small doses of saline, laxatives, especially sodium phosphate before breakfast, followed after breakfast by a cold enema, will have splendid effect upon the liver, intestine and hemorrhoids.

TREATMENT OF SPRAINS.

A sprain is not unfrequently more troublesome to both patient and surgeon than a fracture. In the treatment of sprains, especially of the extremities, I have had very marked success by a very simple process. I mention a case as an example. A carpenter fell from a scaffold and severely sprained one ankle, but produced no fracture. He was conveyed home on a stretcher, and I was immediately called. I directed that his foot at once be put into water as hot as could be borne, and that as the temperature of the water might indicate that some of the water be taken out and this quantity replaced by hot water. His wife put him to bed and kept him upon his back with his foot in the

water all night. When taken out next morning and bathed with lobelia he was able to use it quite well. The hot-water process was continued more or less during the day, and by the third day he was again superintending his men. I could add several cases of ankle, knee and wrist sprain that would be but a restatement of the same successful treatment, which quickly relieves the tension of the nerves and circulation, soothes the injured muscles and ligaments, and relieves the hyperemic and congested conditions present. Though the parts injured may be weak for a few days, this process is simple, effective and quickly curative. Let the lobelia be freely applied when the part is not in the water.—*Sanitary Home.*

PASSING THE CATHETER.

When you attempt to introduce the catheter into the bladder where the prostate gland is enlarged, remember the sinus pocularis. Well, how will you avoid it? Oil the index finger of the right hand and introduce it into the rectum. After introducing your catheter, hold it in the left hand and push it down until you meet the obstruction. Then follow the catheter with the index finger to its point—I mean the index finger in the rectum—gently raise it up, apply a little more force with the left hand, and ninety-nine times out of a hundred you will be surprised to find how easily the instrument enters the bladder. I can say without boasting that I have never failed in this simple operation in my life, and it is seldom now that I ever draw blood or give the patient much pain.

Never try to introduce a catheter into the bladder where the prostate gland is enlarged, without having the finger in the rectum to spread the lateral lobes apart, and lift the point of the instrument above the sinus pocularis.—*Ex.*

THE TREATMENT OF GONORRHOEA WITH FREQUENT IRRIGATIONS OF HOT DECIMAL NORMAL SALT SOLUTION.

In looking over the germicides added to the water in the modern irrigation treatment and considering their strength, one is justified in being sceptical also as to the value of specifics used in this way, and in suggesting that plain water would do as well. The germ, though at first a resident of the upper layers of the mucuous membrane,

extends deeper, and is entirely out of the reach of any germicide; and though these weak solutions might kill the germs on the surface, we do not need to kill them if we are to wash them out, and plain water will sweep them out just as well as a weak germicide. In my own experience with Halsted's method, it did not seem to make any difference whether corrosive sublimate were added or not—the patients recovered as soon one way as the other.

Surely so weak a solution of permanganate can have little germicidal power for the short time it is in the urethra, and might just as well be omitted. In some of my own cases there was so much complaint of the pain that the drug was omitted, and the patients seemed to progress to recovery more rapidly on plain water. It is, then, justifiable to doubt the efficacy of any germicide in irrigation, and to assume that the good results are due to washing away the germs and toxins, leaving the tissues to destroy the rest.

The gonococcus is such a frail exotic, so difficult to keep alive in artificial media, that it was long believed to be a pure parasite, incapable of growth outside of the host. Almost anything can be expected to kill it—chilling, drying, etc.—and we know that the disease is rarely transmitted except by direct transfer from host to host, and that if it is transmitted by mediate transfer, it is done shortly after the germs have left the preceding host, the medium introducing the fresh, moist germs, as by moist towels, basins, etc. It is perhaps unknown for the dried, chilled germ to infect. The lower thermal death point is not known, but the germ will not grow if kept colder than 79 deg. F. Its range is said to be 86 deg. to 94 deg., and above 100.4 deg. it will not grow at all. Every degree beyond the growing limits must weaken the gonococcus, even if the effect is not fatal. Neisser demonstrates that 113 deg. F. destroyed the virulence and reproductive power of the germ, though we must presume that it must take some time to do this, for Sternberg shows that 140 deg. F. is fatal in ten minutes. Here, then, is a method of treatment better than germicides, for we can surely warm the deep gonococcus to a temperature of 113 deg. F. by copious irrigations. Perhaps Valentine's brilliant results are in part due to the heat of the fluids used, and surely the good results of baking gonorrhœal points in arthritis must be due to the germicidal power of the heat.

In gonorrhœa, then, it is a simple matter to cleanse with a fluid as hot and unirritating as possible, and as often

as possible. Being at first only a local disease, only local treatment is needed. There are no nauseating drugs to damage the stomach, no annoying chemicals, no restrictions in diet except as to the articles we know to be irritating, nor confinement to bed, nor is there necessity for alkalinizing the urine, but only for diluting it when it is too concentrated. Instead of using a weakening and depressing treatment, we should build up the strength so that the powers of resistance are increased to the point where the tissues can dispose of the germs, which they eventually do in every case. Increased resistance from good nutrition is just as important as in other gonorrhœal infections. Reduction of diet is as bad as venesection.—*By Charles E. Woodruff, M. D.—Cleveland Med. Gazette.*

ACROSTIC ON FRACTURES AND DISLOCATIONS.

S. C. Mish gives the following as an aid to the memory :

FRACTURES.

False point of movements.
 Rotary displacement.
 Angular deviation from normal angle.
 Crepitus.
 Tenderness on point of pressure.
 Unnatural mobility.
 Retraction of limb by muscular contraction.
 Ecchymosis.
 Shortening, swelling, pain.

DISLOCATION.

Disturbance in function of joint.
 Immobility.
 Swelling.
 Loss of natural contour.
 Only forced mobility
 Crepitations, no crepitus.
 Angular deformity.
 Tenderness and pain.
 Interference with function.
 Old landmarks of joint destroyed.
 No shortening in shaft of bone.—*Cal. Med. Journal.*

Therapeutic Notes.

AN OINTMENT FOR FISSURE OF THE ANUS.

R Extract of cicuta.....	5 parts
Castor oil.....	15 parts
Lanolin.....	30 parts--M.
<i>New York Med. Journal.</i>	

ADMINISTRATION OF COD LIVER OIL TO CHILDREN.

R Cod-liver oil.....	2 ounces
Extract malt.....	$\frac{1}{2}$ ounce
Syrup Hypophos. of lime.....	$\frac{1}{2}$ ounce
Glycerine	2 drachms
Powdered acacia.....	2 drachms
Cinnamon water q. s.....	4 ounces
M. Sig.: One to two teaspoonfuls after each meal.	

AN OINTMENT FOR CORNS.

R Acidi salicylic.....	$\frac{1}{2}$ drachm
Resin.....	1 drachm
Lard.....	2 drachms
Oil sweet almonds.....	1 drachm
M. Sig.: Trim the corn and apply this ointment placed upon a piece of cloth.	

R Ext. opii.....	
Pulv. Camph.....	
Balsam Peru.....	aa gr. xv
Mastic	gr. xxx
Chloroform	3 vi

Wet a small piece of absorbent cotton with this solution and insert in the cavity of the tooth.

TO CONTROL LACTATION.

Belladonna internally, in tincture, and externally, in ointment, will quickly dry up lacteal secretion after the death of the child or after miscarriage. If physiologic effects appear, discontinue medication for twenty-four hours, and resume treatment.—*Med. Council.*

ANTIDOTE FOR FORMALDEHYDE.

In view of the fact of this chemical is coming more and more into general use as a disinfectant and antiseptic, cases of poisoning from it will become more frequent. We have an easily accessible and reliable antidote in ammonia water. It may be given in the form of ammonia water (a few drops well diluted) or the aromatic spirits or a solution of ammonium acetate. It forms with formaldehyde the well-known, non-caustic, non-toxic compound employed therapeutically under the name of formine, urotropine, etc.—*Merck's Archives*.

FOR A TICKLING COUGH.

One very often meets with an annoying condition wherein the patient complains of a "tickling in the throat which makes me cough constantly." This will be relieved by the following :

R Codene gr. j
 Phenacetin gr. xij
 Powdered licorice gr. xvj
 Sugar of milk a sufficient quantity.

Make into eight powders.

Dose: Dissolve one in mouth every hour.—*Buffalo Medical Journal*.

ACNE DUE TO DIGESTIVE DERANGEMENTS.

R Creosoti m ss
 Cerii oxalatis gr. ij
 Pepsini pur. gr. i
 Strychninæ sulph. gr. $\frac{1}{10}$
 Tr. belladonnæ m ij
 Podophyllotoxini. gr. $\frac{1}{10}$

M. et ft. capsula No. i. S. One such capsule to be taken after each meal and at bedtime, if needed.

Externally apply :

R Acidi salicylici gr. xx
 Ol. eucalypti. m x
 Acidi borici ʒ ss
 Ungt. zinci oxidi
 Ungt. aquæ rosæ aa ʒss

M. et ft. ungt.—Shoemaker in *Med. Record*.

CONVULSIONS IN CHILDREN.

Hot or tepid bath or mustard bath if the child seems to have been chilled. To prevent recurrence give :

R Potass bromide.
Sodii bromide.
Ammon. bromide.....aa gr. iij
Syr. codein..... 3 j
Syr. auranti flor..... 3 j
Aqua 3 iij

If the child cannot swallow, give a rectal injection with :

R Musk..... gr. ij
Chloral hydrate..... gr. ivss
Camphor..... gr. xv
Yellow of egg..... 3 iiss
Aqua..... 3 iij

—Dr. J. Simón, in *Med. Record*.

A GOITRE REMEDY.

Dr. Chavette, *Chicago Medical Times*, claimed to cure every case of goitre he treated by the use of the following remedy :

R Zinc sulphate.....
Salicylic acid.....
Iodoform.....aa 2 dr.
Boracic acid..... 3 dr.
Oleic acid..... 8 oz.

Mix and keep at boiling heat for several hours, then pour off the liquid, and, when cold, bottle.

Sig. : Apply to the enlarged gland, with slight friction, twice daily until a slight desquamation occurs, after which apply only once daily until the enlargement is entirely reduced. In no instance did the disease return. *The Therapist*.

ASTHMA.

R Potassii iodid..... 3 ijs
Tinct. lobeliae..... fl 3 iv, mx
Syr. sarsaparillae comp., q. s., ad. fl. 3 ij

M, Sig. : Teaspoonful every two hours till relieved.—

Anders.

JOSEPH H. ABRAHAM, M.D., Instructor in Laryngology in New York Polyclinic, in a paper on "Acute Tonsillar Diseases and Their Sequelæ," recommends the admini-

stration at the onset of acute catarrhal tonsillitis of a saline purgative, and then the spraying of the tonsils or pharynx every hour with a solution as follows:

R Formalin..... m xv-xx
 Potass. chlor..... ʒ j
 Liq. ferri. chlor..... ʒ j
 Aquæ menthæ pip...q.s. ad. ʒ j
 M. Sig.—Use as spray.

ECZEMA IN CHILDREN.

Ointment of pyrogalic acid, one to two per cent., acts almost specifically. In no case in which this per cent. was used has it manifested itself in the color of the urine. Relapse of eczema is very rare.—*Paris Cor.*

Jottings.

Guaiacol applied locally, one part to fifteen of vaseline or lanolin, will remove the pain of acute articular or muscular rheumatism.

In poisoning by chloroform, drop upon the back of the tongue dilute hydrocyanic acid in full doses, says the *Journal of Medicine and Science*.

Collodion, tincture of iodine, liquid ammonia, equal parts, to be applied widely over the parts with a camel's hair brush, is said to give almost instantaneous relief in lumbago.—*Med. Summary*.

In Europe, where experiments were first made with different materials for covering the hands in operating, gloves are employed less than formerly. The Berlin surgeons rarely use them, and Tuffier is said to be the only glove operator in Paris.

Dr. H. A. Royster says:—I cannot imagine a young operator becoming very expert if he uses gloves. I believe that more bacteria drop into the long exposed wound of the glove operator than are carried in by well-prepared bare hands.—ROBERT T. MORRIS.

Equal parts of lactic acid and glycerine applied to the face twice a day is said to remove freckles.

I believe that if a man cannot keep his hands clean, he cannot keep gloves clean.—JOHN B. MURPHY.

It is said that warts may be removed by painting them once a day with a concentrated solution of bichromate of potash.

When there is great increase of mucous secretions anywhere, from nose, bronchi, bowels, vagina, think of ammonium muriate.

A hot fomentation that will not require to be changed frequently can be made by dipping a flat section of sponge in hot water. Apply to the part, and upon sponge place a hot water bag. If desired, the water in which the sponge is dipped may be medicated.

Dr. J. D. Staple, a public vaccinator of Bristol, gives a curious account of the cure of warts on the hands of a girl by vaccination. On one hand 94 warts were counted. In about seven weeks after the operation the warts had gradually disappeared, leaving temporary white spots.—*Philadelphia Medical Journal*.

According to the *Medical Times* plaster of Paris bandages may be easily removed by the following simple method: Soak some cotton-wool in peroxide of hydrogen, then with this moisten the splint down its entire length and for a width of about half an inch. When it is thoroughly soaked the plaster will be found in the same condition as when first put on, and the bandages have only to be cut with a pair of scissors without any injury to the patient or any trouble whatever.

Harnsberger in *Medical Review* says: In orchitis administer one-eighth grain doses of pilocarpine along with one-half grain codeine; continue until copious perspiration is induced.

The same combination, employed in like manner, has proved useful in the painful attacks of gallstone and renal calculi. The drug is also most useful in the management of certain forms of hiccough, and in stricture and obstructions of the bowels.

Ranula is quickly removed by one-sixth grain of the alkaloid employed hypodermatically.

LANOLIN will prevent bed sores if rubbed into the skin as soon as it becomes red and tender.

FRECKLES are said to be readily removed by a lotion of equal parts lactic acid and glycerine.

MALT EXTRACTS, cod liver oil, the phosphates, etc., should be given with or directly after food.

SULPHURIC ACID LEMONADE should be used by painters as a prevention and cure of colico pictorum.

ACIDS, as a rule, should be given between meals. Acids given before meals check the excessive secretion of the acids of the gastric juice.

Torpid ulcers, even when painful and due to varicose veins, may be made to cicatrize comfortably if dusted daily with antipyrin.

FOR REMOVING INK STAINS use a solution of chlorinated soda. Wet the stain with the solution and wash thoroughly after a few moments.

Night Sweats.—Night sweats are relieved by fifteen grain doses of camphoric acid taken an hour before bed-time.—H. A. Hare in *Medical Record*.

A CARBUNCLE may be arrested in its development by the injection into different parts of the tumour of five drops of pure liquid carbolic acid at each point.

A SIMPLE and it is said effective treatment for itching piles is the application once daily after defecation of a few drops of collodion on absorbent cotton.

DR. WILSON SAYS that equal parts of glycerine and water, with sufficient lemon juice to make the mixture agreeable to taste, is an excellent mouth wash in fever cases.

IF YOU WANT TO GAIN A REPUTATION for working miracles, wrap a swollen rheumatic joint in cloths wrung out of ice water and the pain will almost instantly cease.

Prof. Osler says that the most common cause of chills in typhoid fever is the administration of antipyretics, such as antipyrin. They depress the temperature, and when it rises it may be accompanied with a chill.—*Med. Sum.*

PAIN IN THE lower limbs, or the slightest degree of limping in children, should lead to an examination of the hip-joints. Many cases of beginning hip-joint disease may be discovered at a time most opportune for treatment.

IF POTASSIUM NITRATE be powdered and moistened and applied to a freckled face night and morning, the freckles will soon be removed.

IT IS SAID THAT A TEASPOONFUL OF VINEGAR upon the surgeon's hands after washing with soap and water will remove all odor of iodoform.

A QUICK AND CERTAIN REMEDY for postpartum hemorrhage is the introduction, by the hand, into the uterus of a piece of lint saturated in turpentine.

IT IS STATED that enveloping the limb for one night in flowers of sulphur will cure sciatica. The urine next morning smells strongly of sulphuretted hydrogen.

THE BROWN-COATED TONGUE indicates an alkaline state of the blood. Dilute sulphuric acid will be an appropriate remedy and the tongue will soon become clean under its use.

EDUCATE THE HAND well in obstetrics and you will soon find that you can get along well without the eyes in the ordinary manipulations, and even in the application of forceps.

IN TRUE IDIOPATHIC CHLOROSIS, where iron is ineffectual, sulphur will produce a marked amelioration. After using sulphur, iron can again be resorted to, and it becomes very beneficial.

DR. W. S. CLINE says: "I suffered from sciatica and rheumatism the torments of hell for six weeks; cured in less than three minutes by rubbing in from hip to heel half an ounce carbon bisulphide."

IN POISONING WITH CARBOLIC ACID taken internally, remember that alcohol is the best antidote. Do not waste time with emetics, but give at once a large dose of alcohol, whiskey or brandy, and repeat it often.

THE WHITE COATED TONGUE indicates an excess of acid in the blood. An alkali to counteract this state is indicated. A weak solution of bicarbonate soda given every hour in teaspoonful doses will prove a very effective remedy.

ANTIDOTE FOR COCAINE.—Gelsemium is suggested as an antidote for cocaine. It has been tried in treating patients whose dentists have injected cocaine for dental work. In a number of cases there were bad results—syncope, etc., and in every case gelsemium gave excellent results.

FOR THE RELIEF OF EARACHE take five parts of camphorated chloral, 30 parts of glycerine and 10 parts oil of sweet almond. A piece of cotton is saturated and introduced well into the ear. The earache is usually relieved as by magic.

FOR SPASMODIC ASTHMA give hypodermic injections of atropine into the nape of the neck; inhalations of smoke of stramonium leaves; fluid extract of nux vomica; internally, alcohol, ether, chloral, inhalation of chloroform cautiously administered.

A CURE FOR COLDS.—Dr. Stephen Harnsberger suggests, after eleven years' test, thirty grains of potassium bicarbonate every four hours in a glass of milk or cold water. The patient should rest for one or two days, and subsist on a concentrated liquid diet.

MCLEOD, of Shanghai, states that it is possible to cure the opium habit by the administration of sodium bromide. He gives the drug in two doses of 2 drachms, in solution, every two hours for the first two days and 1 drachm on the third day. Two ounces in all will probably suffice in most cases.

Oxide and nitrate of silver should be given after the process of digestion is ended; if given during or close after meals, the chemicals destroy or impair their action. Potassium permanganate, also, should not be given until the process of digestion is ended, inasmuch as organic matter decomposes it and renders it inert.

CASTOR OIL IN NEURALGIA.—A number of writers have called attention to the good effects of castor oil in neuralgia. The action of castor oil in neuralgia seems to be apart from its cathartic effect, as the use of other cathartics is not attended with the same results, and the good effect of the oil is secured even without producing purging. The dose given is one half ounce.

GIVE MILK WITH BORATE OF SODA to one who is thought to have been poisoned. It is the first thing to be done after emptying the stomach. If arsenic is suspected, magnesia should be given. If there are vegetable poisons, the best antidote is a one per cent. solution of permanganate of potash, which is harmless in this degree of dilution. It decomposes most organic substances by oxidizing them.

ONE-QUARTER OF A GRAIN OF COCAINE should be the maximum hypodermatic dose.

COMMON LARD is an efficient antidote in strychnine poisoning, and it can be found in any household.

A TEASPOONFUL of the fluid extract of fucus vesiculosus in a glass of water before meals has cured cases of goitre.

FOR BURNS AND SCALDS there is nothing more soothing than the white of an egg, which may be poured over the wound.

THE LATEST REMEDY for the vomiting of pregnancy is a twenty per cent. solution of menthol in olive oil. The dose is ten drops on sugar when the nausea appears.

ETHYL CHLORIDE, in the form of a spray, is a most efficient local anæsthetic, producing anæsthesia in from one-half to one minute. The effect lasts two or three minutes.

IN CASES OF CHRONIC NASAL CATARRH where the mucous membrane is congested, a solution of equal parts of extract of hamamelis and water sprayed up the nose does well.

CYANOSIS, with weak and rapid small pulse, low arterial tension, great feebleness of the heart's action, demands digitalis. This is especially true where the lungs are involved in disease.

INFLAMED BREASTS are readily treated by discontinuing lactation and using a soft compress, under which a bella-donna ointment is applied for about twenty-four hours. Internally, aconite or veratrum viride should be given with mild saline purges.

To abort a boil or bone felon before suppuration has set in, Dr. Lummins (*Med. Summ.*) strongly recommends covering the boil or finger to the thickness of an eighth of an inch, with unguentum hydrargyri nitratis (citrine ointment). The ointment must be kept in place by a non-absorbent bandage and put on fresh every eight hours, until all signs of inflammation have disappeared.

Creel has relied on ecthol given internally in doses of a teaspoonful, in cases of carbuncle, flax-seed poultices applied locally, emptying of pus, scraping out of dead tissue and cleansing with peroxide of hydrogen; after this a topic application of ecthol on absorbent cotton every four to eight hours. The average duration of this treatment in his cases was ten days.—*Four. Amer. Med. Ass'n.*

The best non-irritating and promptly efficient enema is prepared as follows: Have a quart bottle three-fourths filled with hot castile soapsuds; add an ounce of castor oil, and emulsify by vigorous shaking; fill the bottle with soapsuds and make the temperature 100° F.; add the yolk of one egg into which a drachm of turpentine has been thoroughly beaten; and shake well and inject at once. Cleanse the syringe well after use, or the oil will destroy the rubber.—*Med. Council.*

For facial neuralgia a solution of twenty grains of thymol in an ounce of alcohol containing two drachms of fluid extract of aconite is a most valuable local application. It should be painted over the painful area and covered by a cotton compress and oiled silk. The extremely poisonous character of the compound should be impressed upon the patient—and marked upon the bottle.—*Nursing World.*

A clamp or artery forceps is placed on the cord near the umbilicus and allowed to remain on same a few minutes, tightly clamped. By removing the forceps a deep groove of hard, semi-transparent tissue can be seen; the ligature is now placed in this canal and tied with a jerk. It is impossible for the suture to slip off if applied in this manner.—*N. Y. Med. Jour.*

One is occasionally called to stop an alarming epistaxis, and finds himself without any instruments or drugs with which he may go to work. Some of the following expedients will stop any ordinary nose-bleed:

1. Have the patient chew a large wad of paper or rag vigorously.
2. Cut a cylinder from a sponge; moisten well, press out all the water, tie a string to the end and pack firmly as far back in the nostril as possible.
3. If tannic acid is at hand, it may be blown into nostril from any tube: a pipe stem, a quill, a catheter, or even a roll of paper.
4. Ice to the back of the neck and to the forehead.
5. Inject very warm water, if syringe be available.

For internal use, the best drugs are gallic acid, iron, hydrastis, ergot and calcium chloride.—*Ex.*

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Editorial.

COLLEGE OF PHYSICIANS AND SURGEONS, PROVINCE OF QUEBEC.

It is now three years since the present Board of Governors of this College was elected, and it is proper to take a retrospective glance at the work it has done before the new Board is elected in September. The affairs of the College for some years previous to its election had not been, in the opinion of a large number of the profession, conducted in a satisfactory manner. The result was a loud call for a "reform Board of Governors," and for some months previous to the tri-annual meeting in 1898 vigorous efforts were made to secure this object. When the members assembled in Montreal in July, 1898, they came in numbers larger than had ever been seen, and the excitement ran high. The "reform party" carried their candidates to victory by large majorities, and what may be styled the opposition party was completely routed. The platform of the reform party as set forth in a circular issued in February, 1898, and subsequently endorsed at a large meeting held on the 9th of June, 1898, contained four principal points, viz., 1st. Abolishing voting by proxy and establishing election of districts by members residing therein. 2nd. To establish a methodical

and up-to-date method of keeping the financial books of the college with a view of making irregularities impossible. 3rd. To watch more closely over the granting of brevets and licenses. 4th. To give the profession better protection against charlatans and those practising without a license. Such were the four cardinal points of the platform of the new Board, and we know that every member of it felt it to be his personal duty to assist in attaining the end desired. Three years is not a long period in which to accomplish great reforms, especially as the Board as such only meets twice a year, and then only for one day. As a matter of fact, the duty of carrying out the reforms sought for fell very largely on the President, Dr. E. P. Lachapelle, and the Registrar, Dr. Marsolais, both gentlemen pre-eminently fitted for the position they fill, and for the special work of reform. We have no doubt that the other officers assisted, but on the President and Registrar fell, by far, the major part of the work. Has the Board kept faith with the profession? We believe it has to a very large extent, and, where it has failed, it has been due to what we may call the impossible. The great scheme of district elections is now law, and the new Board will be so elected in coming September. The details of this scheme, although somewhat cumbersome, are yet as simple as it was possible to make them. This has so long been demanded by the profession we trust it will take an active interest in it. If it does we will have for the first time a thoroughly representative Board. No longer can any man "make" a Board as has been the case in the past by securing a majority of proxies. The matter of a new system of bookkeeping was not so easy of quick solution. Difficulties were experienced in getting possession of the books of the College, and great difficulty in disentangling them. The auditor employed by the Board was not only able but painstaking, and, after a couple of years work, he brought order out of chaos, and we have reason to know that a clear and simple method of bookkeeping is now in use. Much attention has been given by the

Credential Committee of the Board to the candidates for brevets and for licenses. If as much has not been accomplished in this direction as was hoped would be and was desirable, it is neither the fault of the Board or the Committee, but largely of our Legislature. One thing, however, is to our knowledge very clear—that a large number of irregulars have, during the last three years, been dealt with, and under the Pineault and Roy amendments have been granted licenses. The slate is being quickly cleared, and it is hoped that in the near future these irregular cases will greatly diminish. What strikes one, who is the member of the Credential Committee, as more than passing strange is the apparent absolute ignorance of the law of a very large number of those who enter upon the study of medicine. The question of taking proceedings against the large number of charlatans in this province has seriously occupied the attention of the Board, and quite a large number of actions have been taken. Law is proverbially uncertain, and the Board has not been as successful in this department of its work as it hoped to be. But its legal adviser says it is because the law is badly drawn and leaves many loopholes for escape. Doubtless he knows, but does he know how to stop these loopholes. If he does then he possesses more knowledge that should be beneficial to the College than has any of its previous legal advisers, either living or dead. We have known the medical law for twenty-five years, and each legal adviser has proclaimed its inadequacy, and set to work to make it perfect. How great their failure has been can only be understood when we read that it is still very difficult to get convictions under it. All these improvements have cost a great deal of money, but we believe that the money has been justly expended. What has been gained is well worth what it has cost. Notwithstanding all the necessary outlay the College shows a satisfactory balance sheet.

Two issues of the Register have been published, and, although far from being perfect, a state of things possibly impossible of accomplishment, yet they are a decided im-

provement on previous issues. It is our opinion, therefore, that the present Board has justified its election. If succeeding Boards continue the good work it is possible to imagine in the near future a time when the profession in this province will look on the Board as its friend and protector, instead as heretofore has been the case looking upon it as its enemy.

NEW MEDICAL SOCIETY.

The medical men of Three Rivers and vicinity have organized a Medical Society. Dr. Normand is the first President, and Dr. Darche, the Secretary.

Personal.

Dr. Jas. Stewart, Professor of Medicine in McGill Faculty of Medicine, has been elected Vice-President of the Association of Physicians.

Dr. J. M. Jack (M.D., Bishops, 1889) has been appointed Lecturer on Dermatology in Bishops' College, Medical Faculty. He has also accepted the position of Registrar.

Dr. W. J. Alexander, an old graduate of Trinity College, Toronto, is physician in charge of the Emmans Asylum for Epileptics and Feeble-Minded at Marthasville, Mo., U.S.

J. Pierpont Morgan has donated \$1,000,000 to Harvard University Medical School, which is to be used in the construction of new buildings, thoroughly up to date in every respect.

Dr. Hunt (M.D., McGill), who has practiced in Sheffield, England, for many years, visited Montreal early in June. He favoured the editor with a call, but unfortunately he was out of the city.

Dr. A. C. Lopez (M.D., Bishops, 1900), of Manchester, Jamaica, has just arrived home, after spending a year in Edinburgh. He successfully passed the examination for the triple qualification.

Dr. James Ogilvie (M.D., Bishop's, 1884), of Kingston, Jamaica, West Indies, has been elected Provincial Grand Master, Scotch Register, and on June 6th was duly installed into that important office.

Dr. Vineberg (M.D., McGill, 1878), Holmes gold medallist, has recently been appointed Adjunct Attending Gynæcologist to the Mount Sinai Hospital, New York. He also holds the position of Attending Gynecologist to St. Mark's Hospital, New York.

Dr. Henry B. Chandler (M.D., Bishop's, 1880), is Professor of Ophthalmology in Tuft's Medical School, Boston. This school has in course of erection a new building for its work, which it is said will be the most complete building for medical instruction on this continent.

Dr. Tomkins (M.D., Bishop's, 1901), and Dr. Gillespie, (M.D., Bishop's, 1901), have been appointed Resident Medical Officers to the Western General Hospital. Dr. Alexander Macdonald (M. D., Bishop's, 1900) has been appointed Medical Superintendent of the Western General Hospital.

Dr. G. T. Ross, who for many years filled the position of Registrar to the Medical Faculty of Bishop's University, had the degree of D.C.L. conferred upon him by the University at its annual convocation at Lennoxville on the 25th of June. This was a courteous recognition of his long and faithful service in a very onerous office.

The fortieth anniversary of Sir Wm. Hingston's connection with the Hotel Dieu, Montreal, as a surgeon, was celebrated on May 6th. Archbishop Bruchesi began the ceremonies by the celebration of mass in the chapel, after which the surgeons of the Hotel Dieu presented Sir William with an address and an urn of great value. The students of Laval University presented him with an address. Sir William is now seventy-three years old and is still actively engaged in surgical work.

The Hon. Ella Campbell Scariett, M.D., daughter of Lady Abinger, sailed the end of May for South Africa, having been appointed by the Colonial office one of the doctors to the refugees' camp in the Orange River. Colonel Lady Abinger, *nee* Magruder, met Lord Abinger in 1862 in Montreal. He was an officer in the Scott's Guards, stationed then in Montreal, and Miss Magruder, a Southern lady, left her home owing to the American Civil War. They were married in Christ Church Cathedral, in Montreal.

PUBLISHERS DEPARTMENT.

NEWS ITEMS.

One of the most remarkable but least-noticed facts in connection with the war in the Transvaal is the extreme youth of a large part of General De Wet's army. When hostilities broke out almost every grown man enlisted, even the enfeebled, but the pace has been too rapid for the venerable burghers. As they were killed or incapacitated their places have gradually been taken by mere school-children, many only thirteen or fourteen years of age. Under the title of "The Youngest Soldiers in the World," in the June *Cosmopolitan*, Allen-Sangree throws more light on the make-up and life of General De Wet's commandoes than anything hitherto published. The naïve, simple letter from fourteen-year-old Deneys Reitz to his father, the Secretary of State of the Transvaal Republic, has seldom been equalled for vital interest by any carefully written article on the war.—*Can. Med. Rec.*

SANMETTO IN ENLARGED OR ATROPHIED PROSTATE, WITH URINARY DIFFICULTIES.

The cases in which I have had occasion to use Sanmetto are quite numerous and varied, both acute and chronic, and when indicated have produced very satisfactory results, both to me as well as to the patient. For a period of three years Sanmetto has been my sheet anchor in the large majority of cases of prostatic and urinary difficulties, both in enlarged prostate as well as atrophied conditions. I may sum up the whole category of prostatic and urinary ailments, and say in my experience that Sanmetto covers more general indications and is more reliable in my hands than any other remedy. I use and have great confidence in Sanmetto.

Toledo, O.

J. S. FISHER, M.D.,
1876 Pulte Med. Col., Mem. Nat. Homeo. Med.
Assn., Mem. Ohio State Med. Soc. & N. W.
Ohio Med. Soc. & Toledo Med. Soc.

CANADA MEDICAL RECORD

AUGUST, 1901

Original Communications.

BELL'S PARALYSIS.

A CLINICAL LECTURE DELIVERED AT THE MONTREAL
GENERAL HOSPITAL, 8TH AUGUST, 1901.

By FRANCIS WAYLAND CAMPBELL, M.A., M.D., L.R.C.P.,
London, D.C.L.

Dean of and Professor of Medicine, Faculty of Medicine, University of
Bishop's College.

Gentlemen,—The patient now before us is a healthy French Canadian woman of about 27 years of age. She has had fair though not robust health. She is not aware of having in any way exposed her face to a cold draft of air, nor is there any history of specific disease. She informs us that she went to bed about a week ago with nothing wrong with her face, and in the morning found herself in the condition she now is, *i.e.*, has what is known as Bell's paralysis. This disease is known more generally under the name of facial paralysis or palsy, and is due to the motor division of the seventh nerve, the portio dura or facial nerve being involved in various ways. Its conducting power is lost, and the muscles which receive its distributing branches are paralyzed. The most common cause is a cold wind blowing on the side of the face, sitting at an open window of a room or railroad car, sleeping near a damp wall. Even exposure of the whole body to a low temperature has caused it. The pathological condition is believed to be a

slight inflammatory swelling of the peripheral part of the nerve, which leads to compression of its fibres. Parotitis, tumours, swelling of the cervical glands and wounds of the cheek are also causes. In the course of the nerve within the aqueductus falopii it is very apt to be involved in the severe forms of disease of the petrous portion of the temporal bone; also in caries and necrosis depending upon scrofulous inflammation of the tympanum. A box on the ear has produced it, and the result in more than one such case has been the discovery of a small clot pressing on the nerve in some part of its course. Inside of the skull the nerve may be implicated in lesions at the base of the brain. In such cases other nerves are involved, and there is distinct evidence of cerebral disturbance. Even the new-born may be attacked by peripheral paralysis of the facial nerve, if delivery has been effected with forceps, and one blade of the instrument, from improper application or slipping, has exerted undue pressure of the trunk of the nerve at the ear or at its division on the cheek. Members of nervous families and those who indulge excessively in intoxicating liquors appear predisposed to this form of paralysis, probably because the resistance of the nervous tissue to injurious influences of various kinds has been diminished. Occasionally persons are attacked with this form of paralysis several times in the course of a few years—generally on the same side, but the other side may be attacked.

Symptoms.—Inability to move the muscles supplied by the facial nerve. Cannot frown, laugh or smile—when this is attempted one side of the face remains destitute of expression. The forehead cannot be wrinkled—no creases around the eye, no dimples on the cheek or chin. The eyelids cannot be closed. In the effort the eyeball is turned up till the pupil is almost lost to sight. The patient cannot whistle or spit or blow. The cheek falls away from the teeth, owing to paralysis of the buccinator muscle. The food collects on the affected side, outside of the teeth, and must be removed by the finger. In speaking, the labial con-

sonants are uttered indistinctly. In some cases the mouth is drawn well over by the power of the healthy muscles of the other side. The eye has a fixed stare, and the entire expression of the face is peculiar—sometimes comical. The exposure of the conjunctiva from inability to close the eyelids very often gives rise to a certain amount of conjunctivitis, but often not so much as would be feared. This is because during sleep the levator palpebrae muscle is very frequently so relaxed that the eyelids very nearly close. Smell is sometimes lost, or at all events perverted, due to the dry condition of the corresponding nostril, caused by the tears flowing over the cheek. Taste is also perverted, due to the conducting power being lost in a branch of the seventh nerve—the chorda tympani. Hearing is often abnormal, and is a result of paralysis of the stapedius muscle, which receives a branch of the facial, its antagonist, the tensor tympani, being no longer opposed, keeps the membrane on the stretch. The branch supplying the soft palate is often affected. In some cases the uvula is turned toward one side. Occasionally we meet with double facial paralysis, which has received the name of “diplegia facialis.” The whole face in these cases is expressionless and peculiar, at times very comical. Such cases are most generally due to a syphilitic gummata at the base of the brain, involving both nerves. The disease may come on suddenly or gradually—generally the former. When it comes on gradually the first indications of the disease is inability to spit or whistle—or he may find the face drawn to one side, with the other attendant symptoms when he gets up in the morning. In one of the most persistent cases of this disease which I have ever had—the patient had been rowing on Lake George late of a moonlight evening, and reached his hotel about midnight. He was overheated and sat at an open window to cool off. He retired perfectly well, but, when he rose in the morning to proceed to Montreal, this form of paralysis was fully developed. It was several months before it disappeared.

Diagnosis.—The diagnosis of peripheral facial paralysis

is easy on account of the striking distortion of the face. Care must be taken to see that there is no other nerve involved.

Prognosis.—If the facial nerve alone is involved, the prognosis is favourable. The time in such cases will generally be from three to twelve weeks, but do not be disappointed if the disease lasts longer—say six to seven months. Syphilitic cases are generally very tedious, and may be permanent.

Treatment.—Casual therapy must always be considered. When exposure to cold has been the operating cause, salicylic acid or sodium salicylate may be employed in doses of one to fifteen grains every two hours till ringing in the ear occurs. Diaphoretics (hot infusions, pilocarpin subcutaneously) and hot cataplasms, applications of cotton wadding. If the case is specific in its origin, mercurial inunctions and iodide of potash in doses varying in strength of seventy-five to five hundred grains daily. I have given it in this latter dose for several weeks, with the very best results. I gave it at the suggestion of the late well-known specialist, Dr. Sequin, of New York, who saw the case in consultation with me. Massage of the paralyzed muscles is advantageous in order to stimulate their nutrition, otherwise they will undergo atrophy due to inactivity in consequence of lack of use. The results of electrical treatment also are scarcely more than mechanical, inasmuch as after electrical contractions paralyzed muscles emaciate less rapidly. As long as paralyzed parts respond to the faradic current this should be employed, and, with a well-moistened and firmly-applied electrode movable from place to place, while the other electrode, as large as possible, is applied to the sternum, the individual paralyzed muscles are stimulated to contract for ten to twenty times. Care should be taken to employ currents just strong enough to cause contraction of the paralyzed muscles, as currents of too great strength may produce electric contractures in the paralyzed muscles, which may not subside, and may give rise to unfortunate dis-

figurement of the face worse than the original disease. If the paralyzed muscles do not respond to the faradic current, then the galvanic current should be employed, preferably by labial application, the anode (positive pole) is applied to the sternum, and the more active stimulating kathode (negative pole) is stroked over each paralyzed muscle from ten to twenty times daily. Leeches and blisters behind the ear are advised.

In the patient before us I have not been able to get any clear history as to the cause, but for reasons of a somewhat empirical character I will order her 10 grains of iodide of potash three times a day.

August 15.—Patient presented herself to-day at the Clinic, and shows decided sign of improvement.

August 19.—Patient has continued the iodide of potash in same dose as prescribed on the 8th inst. Is to-day almost able to entirely close the eye, and there are other well-marked signs of improvement.

August 26.—Patient is practically well. There are few signs still remaining. The iodide of potash will be continued for about another month, by which time I feel confident every sign of the trouble will have disappeared.

Selected Articles.

ON RECENT RESEARCHES.

WITH REGARD TO THE

PARASITOLOGY OF MALARIA.

Being a portion of the Address delivered at the Anniversary Meeting of the Royal Society.

By the Right Hon. the LORD LISTER,

Retiring President of the Society.

Through the Malaria Committee the Society has kept in touch with the progress that has been made in unravelling the mystery of the greatest scourge of our tropical colonies, and with the steps that advancing knowledge has suggested

for its suppression. The subject has now reached a stage at which it may be not unfitting to refer briefly to what has been accomplished.

The term "malaria" implied the belief that some vitiated state of the atmosphere was the cause of the disease. But the knowledge gained of late years of the parasitic nature of infective disorders pointed clearly to such an origin of the intermittent fevers, as the various manifestations of malaria have been termed. Accordingly, diligent and long-continued search was made in the water and the soil of malarious districts in Italy for the suspected living agent, but without success.

LAVERAN'S DISCOVERY.

The discovery was made in 1880 by Laveran, a French army surgeon stationed in Algiers, who observed in the red blood corpuscles of malarious patients what he regarded as adventitious living organisms; not of vegetable nature like the bacteria which constitute the *materies morbi* of so many infective diseases, but a very low form of animal life. In what he believed to be the youngest condition of the organisms, they appeared in the red blood discs as tiny specks of colourless protoplasm, possessing amœboid movements. Those growing at the expense of the red corpuscles which they inhabited consumed them more or less completely, at the same time depositing in their own substance a peculiar form of dark brown or black pigment, such as had long been known to form characteristic deposits in the organs of malarious subjects. As they grew they assumed various forms, among which was what Laveran termed the "rosace," a rounded body bearing at its circumference little spherules, while the pigment was accumulated at the centre.¹

This discovery of Laveran's, at first regarded with the gravest suspicion by pathologists, was the first great step in the etiology of malaria. It supplied the means of distinguishing the disease from its counterfeits, and it explained the wonderful specific efficacy of quinine, till then given only empirically. Quinine is remarkable in the circumstance that it acts with deadly effect upon some microbes, in dilutions which are quite unirritating to the human tissues. It can thus be given in sufficient doses to kill the malaria parasite in the blood without injuring the patient.

GOLGI'S OBSERVATIONS.

Nine years after Laveran's discovery, Golgi, of Pavia, who had been specially studying the "rosace" form of the parasite, and had become convinced that the spherules at the circumference of the rosace were sporules of the microbe, announced that he had observed differences between the rosaces of the tertian and quartan forms of the fever, so great and so constant as to make him satisfied that they were two distinct species of organism. At the same time he had made the extremely important observation that the periods of occurrence of the fever corresponded with the times of maturation of the rosaces. These all coming to maturity about the same time shed their sporules into the blood, and this determined the febrile attack. The free sporules then, according to his view, attached themselves severally to other red discs, constituting Laveran's tiny amœbæ, and grew in the red corpuscles without causing symptoms till they had produced a fresh crop of sporules ripe for extrusion; the time for this being two days in the tertian and three days in the quartan form. Thus the periodicity of the intermittent fevers and their variety in that respect were alike explained.²

THE ÆSTIVO-AUTUMNAL PARASITE.

A few months later a third species of the parasite was recognised, having the peculiarity that some of its individuals, instead of being of rounded form, were of crescentic shape. This species received the title "æstivo autumnal," on account of the season in which it showed itself in Italy. It was not so regular in its periods as the others, and was much more dangerous. The existence of these different species was at first very generally doubted, but it is now universally accepted, and is of very great importance. The examination of a drop of blood from the finger of the patient enables the physician to decide not only whether the disease is malaria, but which of the three types it will follow. The more dangerous crescent form is commonest in the tropics, and hence has been termed by Koch "tropical malaria." The quartan has proved the mildest of the three.

The process of sporulation might seem at first sight to explain the whole life-history of the parasites. For their propagation within the human body that process does indeed make ample provision. But the mystery remained—How did they gain entrance into the human system?

Though present in abundance in the blood of the malarial patient, they are absent from the excreta. Spontaneous generation having been long since exploded, what could be their mode of origin in the external world? This problem has of late been completely solved.

MANSON'S DEDUCTION.

Among the forms of the parasite observed by Laveran was one which he termed "flagellated," possessing flamentous appendages which exhibited extremely active movements, by virtue of which they were often seen to break off from the parent microbe and swim away. These flagella were regarded by many biologists as products of degeneration resulting from the abnormal influences to which the parasites were exposed in blood outside the body. This Laveran could not believe. Indeed it was the remarkable activity of the flagella that finally satisfied his own mind that what he had discovered were really living parasites; he regarded the flagella as the highest form of development of the microbe. There was another observer who felt equally convinced that the flagella were living elements—our Fellow, Dr. Manson. He, however, went a step further. Seeing that the flagella were never met with in blood when first drawn, but only made their appearance after some little time had elapsed, he conceived that their function must be that of spores for spreading the parasite in the external world, and some suctorial insect seemed to him the probable agency for their diffusion. He had observed several years ago that another parasite of the human blood, a microscopic nematode worm, filaria, is drawn with the blood into the stomach of a kind of mosquito, and finds in the insect a secondary host, in the tissues of which it passes through a new cycle of development. He became deeply impressed with the idea that a similar series of events might occur with malaria, and he expounded his views fully before the Royal College of Physicians of London. The notion that mosquitoes might be in some way associated with malaria had occurred to Laveran and to others, but by no one had it been brought home with such logical force as by Manson.

ROSS'S OBSERVATIONS.

Major Ronald Ross, of the Indian Medical Service, on a visit to this country became deeply impressed by Manson's arguments, and determined to test his theory on returning

to India. Using mosquitoes bred in bottles from the larva, he caused them to bite persons affected with the crescent form of malaria, and afterwards sought in the bodies of the insects for evidence of the development of the parasite within them. For two long years he pursued this search, making about a thousand observations, but to no purpose. So far he had employed two kinds of mosquito common in the district where he was stationed ; but in August, 1897, having been supplied with some larvæ of a species rare in that locality, and having bred the fully-developed insects from them, he induced eight of them to bite a patient with crescents in his blood, and examined their tissues at successive periods. Four of them were killed at once for the investigation of the flagellated bodies. Of the remainder, one examined four days after biting showed, under a high magnifying power, several rounded bodies embedded in the wall of the stomach, differing from any natural structure of the insect, and containing granules of pigment " identical in appearance to that of the parasite of malaria."³ The eighth mosquito was killed one day later, and exhibited bodies precisely similar except that they were distinctly larger and more substantial, implying that they had grown in the interval. Thinking that in all probability he had at length found that which he had been so long in search of, and feeling uncertain when he might again obtain the rare species for confirmatory investigation, he at once sent a description of his observations to London, accompanied by his preparations and an independent report upon them by a colleague. Dr. Manson, to whom among others they were submitted, was so much struck with the preparations that he had a drawing made of the pigmented bodies in them, for publication along with Ross's paper. Though, like Ross, expressing himself with caution, he inclined to his interpretation of the appearances. The paper contained a minute description of the rare mosquito, which seemed to Ross to belong to a " family distinct from the ordinary " kinds.

In the following month he made a similar experiment with another species of mosquito which appeared closely allied to the subject of his last observations. He succeeded, though with some difficulty, in getting two of them to bite a patient with crescents. One of these insects, killed next day, was examined with a negative result ; but in the second, killed forty-eight hours after biting, the peculiar pigmented bodies were again seen among the tissues of the stomach.

Meanwhile "some scores" of the same species "unfed or fed on healthy blood, had been examined without finding the cells."

In the same month he observed precisely similarly pigmented bodies in a common mosquito which he had seen feeding on a patient affected with the parasite of mild tertian fever. Here he had not the rigorous evidence supplied by insects bred from the larva⁴; and it was quite a new thing to find the pigmented bodies in ordinary mosquitoes. But all the patients, on whom his previous observations on the common species had been made, had been affected with crescents; and the parasite concerned being in this case a new species, it did not seem unlikely that it might be harboured by the common insects.⁵ These new facts removed all doubt from his mind; and he felt that he had the subject in his grasp, and wrote to that effect to Manson. But to his bitter disappointment he was at this time despatched to another part of India to study another disease, and thus several precious months were lost.

In February, 1898, however, he was told off for the special investigation of malaria, and a laboratory in Calcutta was set apart for his use.⁶ Few cases of human malaria being available at that season of the year, he turned his attention to some closely allied forms of disease common in birds. He soon found that one of the ordinary kinds of mosquito, which had invariably given negative results when fed on patients with crescents, developed pigmented bodies among the tissues of the stomach, if fed on birds—such as sparrows—containing in their blood the forms of bird parasite known as proteosoma. The birds presented a ready field for experiment; and the kind of mosquito—the grey mosquito, as he termed it—was very abundant in Calcutta; so that it was easy for him to hatch from the larva any number that he might require. Discoveries now followed each other in quick succession. He soon announced that the pigmented bodies grew rapidly from day to day, till after about a week they assumed large proportions, projecting like buttons from the outer surface of the stomach, and often showing a curious appearance of radiating striæ. Next we learned that the striæ had been indications of spore formation, and that when the bodies had attained maturity they burst into the general body cavity, discharging enormous numbers of minute elongated organisms which he termed "germinal rods." Then followed the remarkable observation that the germinal

rods soon leave the general body cavity and accumulate in the cells of the salivary or poison glands, and in the duct leading from them to the proboscis with which the bites of the insect are inflicted; and, lastly, he completed the cycle of evidence by ascertaining that healthy sparrows could be infected with the proteosoma by causing mosquitoes to bite them at the appropriate period after biting an infected bird.

Thus was in truth established the mosquito theory of malaria; for taking into account the close resemblance of the proteosoma to the human malarial parasites, together with the facts ascertained by Ross regarding the infection of the rare mosquitoes with human crescents, we could not doubt that the course of events which he had traced in the sparrow occurred also in man. And the two sets of observations taken together clearly established the fact that, as Manson had predicted, different species of malarial parasite may require different kinds of mosquito as their alternative hosts.

At the same time the presence or absence of pigmented bodies in the stomach wall afforded a sure means of distinguishing those kinds of mosquitoes which convey malaria to man from those which are incapable of doing so. And it may be added that the multitude of negative results, after feeding grey mosquitoes with crescent blood, considering the great prevalence in Indian birds of the parasite with which that species of insect is liable to be affected, afforded pretty conclusive evidence that the mosquito never derives the germs of malaria from the larva, and can acquire them only by biting some infected animal.

MACCALLUM'S OBSERVATIONS.

But although the mosquito theory was thus demonstrated, there remained a link wanting in the chain of biological sequence. The flagella, which Manson regarded as spores, were destitute of malarial pigment, whereas the smallest corpuscles seen by Ross in the stomach wall invariably possessed it. How was this inconsistency to be explained? What was the relation of the unpigmented flagellum to the pigmented corpuscle? The answer had been already independently supplied.

I was present at a sitting of the Zoological Section of the British Association at the Toronto meeting in 1897, when Dr. MacCallum, a young pathologist of the Johns Hopkins University at Baltimore, read a paper describing the results, of an investigation in which he had long been engaged into

another form of malaria parasite, halteridium, especially common in crows. He told us—and he illustrated his statements with preparations under the microscope—that he had distinguished differences, which he regarded as fundamental, between the spherical bodies seen in the shed blood of a bird affected with that parasite. Though alike in size, some had a more granular protoplasm than the others, which had a more hyaline aspect; and he had observed that the more hyaline ones alone emitted flagella. These, after wriggling themselves free from the parent cell, swam away till they approached some corpuscle of the other more granular sort; when the first that reached it plunged into its substance and disappeared, while all others were by some amazing provision absolutely refused entrance. Here, then, was witnessed, in an exceedingly low form of animal life, a process of fertilisation identical with that which occurs in an echinus or a fucus. The flagella were neither more nor less than spermatozoa, and the more granular cells were ova. As the result of the fertilisation the female cell was seen by MacCallum to alter its shape in the shed blood and assume an elongated form to which the term *vermiculus* was applied. This new creature was possessed of wonderful powers of locomotion, sometimes in its powerful career piercing through the substance of a red corpuscle.⁷ Nothing could well be imagined better adapted for penetrating the layer of cells that line the stomach of the mosquito; and as the *vermiculus* retained its pigment, Ross's pigmented bodies were naturally accounted for.

These observations of MacCallum's might seem at first almost too wonderful for credence, but they have been fully confirmed by others.

It appears to be doubtful whether halteridium ever produces the "rosace" form with its attendant sporulation, but there is no doubt that the process of fertilisation seen in that parasite occurs in human malaria. MacCallum himself observed the act of conjugation in the crescentic human form, though he did not see the subsequent development of the *vermiculus*.

OBSERVATIONS OF KOCH AND GRASSI.

Koch made a further step by observing the *vermiculus* of *proteosoma* in blood from the mosquito's stomach.⁸ And, finally, our medallist, Grassi, who in other ways has made

most important contributions to this subject, has in a recent work, accompanied by very beautiful illustrations, not only described the presence of vermiculi in abundance in the blood in the stomach of mosquitoes during the first two days after biting patients affected with malaria, but he has traced and figured the pigmented bodies of the smallest size in the tissues of the stomach in the immediately succeeding period, these bodies retaining in some instances the elongated form of the vermiculus after passing through the layer of epithelium that lines the cavity of the organ.

SPORULATION AND SEXUAL REPRODUCTION.

It has thus been abundantly established that the parasites of malaria are present in the patient's blood in two distinct forms, one sporulating asexually in the human system and causing the attacks of fever, the other undergoing sexual development in the body of the mosquito. That both forms are developed from the spores introduced by the mosquito is certain. At what stage they begin to develop their respective peculiarities is not yet quite made out. The crescent form is peculiarly favourable for this inquiry, as it is the crescents only which discharge the sexual function, and they are easily distinguished from the sporulating form, not only by their shape, but also by their much larger size.

The development of the crescents has been specially studied by the Italian pathologists, Bastianelli and Bignami¹⁰, who have been able to distinguish the young crescents while still of extremely small dimensions; and they have made the remarkable observation that, while the crescents are as a rule only found in the blood of the finger when they have arrived at maturity, the young forms are to be seen in internal organs such as the spleen, but above all in the bone marrow, where alone, according to these observers, the youngest recognisable crescents are to be found.

Seeing that, in whatever part of the body they are, the parasites always inhabit the blood, it seems difficult to conceive what can be the cause of their preference, at different stages of their growth, for the blood vessels of different regions and organs. But of this we find parallels in several other cases of blood parasites, the most striking perhaps being the astonishing fact that of two species of filaria that infest the human blood, one only shows itself in superficial

parts at night, and is therefore termed "*filaria nocturna*," while the other has the name, "*filaria diurna*," because it only appears by day in the finger blood and retreats into deep parts for the night.

"ANOPHELES" AND CULEX.

Ross was not an entomologist, and he was unable to learn in India the names of the species of mosquito with which he had been working, till Daniels, one of the explorers sent out by the Malaria Committee, having gone to Calcutta to confirm or otherwise Ross's work, informed him that his rare kinds, which acted as hosts for the human crescents, belonged to the genus *Anopheles*, and that the common sort which performed the same office for proteosoma belonged to another genus, *Culex*. It has been a matter of great interest to ascertain whether all mosquitoes which act as conveyers of malaria to man are of the genus *Anopheles*, and the exceedingly common and numerous species of *Culex* guiltless in that respect. Very numerous investigations into this question, and especially those conducted by Grassi and his coadjutors, seemed to have proved that such is the case, and that, so far as human malaria is concerned, *Anopheles* alone have to be considered.

Our other two explorers, Messrs. Christophers and Stephens, have made various important contributions to our knowledge of malaria. Thus, having paid special attention to the very dangerous disease which, on account of one of its symptoms, is termed blackwater fever, they have come distinctly to the conclusion that it is not a special disorder, but a form of tropical malaria. If this is the case, it is of immense practical importance, for it will follow that any means efficacious for the prevention of ordinary malaria will prove equally so for the deadly blackwater fever.

THE INFECTION IN YOUNG CHILDREN.

Another most important fact which they have ascertained, and which was independently observed by Koch, is that in a native population in a malarious region, while the adults may be perfectly free from the disease, an enormously large percentage of the young children contain the parasites in their blood. Though the disease appears to be much less dangerous to the native children than to new arrivals, implying that they have a degree of congenital immunity, the

parasites in the young natives are perfectly efficacious for causing dangerous fever in white people, when conveyed to them by mosquitoes. Hence the important practical inference that white people settling in a malarious tropical region should not, as they now commonly do, plant their houses near native settlements, but place them at some considerable distance from them, about a quarter of a mile being apparently sufficient. And Christophers and Stephens in their last communication have gone so far as to express the opinion that the following of this simple rule would go very far indeed towards rendering the malarious tropics healthy to Europeans.

In a communication to this Society it is the scientific side rather than the practical that is naturally chiefly dwelt on. Yet I should have been glad, had time permitted, to have referred to the various measures of prevention and treatment of malaria which the light of recent knowledge has already suggested, and which have already borne important fruit. I must now content myself with saying that, very various as these measures are, they are all, without exception, based on the mosquito theory.

NOTES AND REFERENCES.

(1) Laveran, *Du Paludisme*, Paris, 1891. (2) Laveran, *op. cit.* (3) *British Medical Journal*, December 18th, 1897. (4) *British Medical Journal*, February 26, 1898. In this second paper Ross did not repeat the description of his method, given in the former article, of using mosquitoes bred in bottles from the larva. But as that had been his practice for more than two years, there can be no reasonable doubt that he continued it with this new species. I have also his personal assurance that such was the case. (5) As the result of further knowledge there is no doubt that this common mosquito had derived its pigmented bodies, not from the man it was seen biting, but from a bird affected with another species of malarial parasite. (6) It has seemed necessary to refer to these points in detail, as considerable misapprehension has prevailed in some quarters regarding them. (7) On the Hæmatozoan Infection of Birds, by W. G. MacCallum, M. D., *Journal of Experimental Medicine*, Vol. III., No. 1, 1898. (8) R. Koch, Ueber die Entwicklung der Malaria Parasiten, *Zeitschrift für Hygiene und Infectious Krankheiten*, Band xxvii, 1899; exceedingly beautiful photo-micrographs of different kinds of malaria parasites in various stages of development accompany this article. (9) Grassi, *Studi di uno Zoologo sulla Malaria*, Roma, 1900. (10) *Sulla Struttura dei parassiti Malarici*, per G. Bastianelli ed A. Bignami, Società per gli Studi della Malaria, 1899.

GROWING PAINS; WHAT ARE THEY? THEIR TREATMENT.

By J. A. Hale, M. D., Alto Pass, Ill.

Owing to the frequency with which the general practitioner meets what are termed "growing pains" by the

laity, and attributed by physicians to neuralgic phenomena. of growth in the young, the writer desires to enter a protest against lax methods in the diagnosis.

A series of cases of "growing pains" carefully observed will exhibit, besides the initial pain, distinct clinical phenomena, merging one into another, and appearing at irregular intervals, and invariably diagnosed without any thought of connection between their manifestations and the prodromal symptoms of muscular spasm and pain. The fact that children suffering from "growing pains" are usually ruddy of cheek, with red lips and full pulse, bright eye, intelligent and well nourished, and that the tendency of the pains is apparently toward spontaneous recovery has misled many diagnosticians, and hence their oversight of certain sequelæ, which are often late in appearing.

Looking over the field of experience in a large practice among children, in both city and country, and under entirely different hygienic surroundings, the inference was drawn by the writer that "growing pains," where rheumatoid in character, were, in fact, rheumatism under different conditions from those existing in adult life, and attended with complications secondary to this disease. The clinical evidence collected by careful observations corroborates this inference, and every practitioner may be his own authority on this subject and arrive at the same conclusions.

In the presence of such a series of symptoms comprising muscular pain and spasm with a perceptible though slight rise in temperature, followed in a short time by rheumatoid complications, one naturally turns to those remedies which have proven almost specifics in their anti-rheumatic effect, and it is customary to administer salicylic acid or some of its derivatives. Under their use there is complete subsidence of pain and relaxation of muscular spasm; another positive proof that we are upon the right track for the eradication of the morbid factor from the system. But while we complacently watch these good effects, does the average busy medical man consider the injurious action of such medication upon the circulatory and nervous system, which are already overtaxed in the process of growth, and by the detrimental influence of the disease. No matter how carefully we prescribe salicylic acid or sodium salicylate, the full benefit upon the disease is often not manifested unless they be administered in such doses as will exhibit the toxic effects of headache, tinnitus aurium and depression of car-

diac action. For this reason salicylic acid cannot be unreservedly employed in children. In view of the fact that this remedy has undoubtedly contributed to the fatal termination of cases under certain conditions, would it be advisable to still follow the advise of the Germans and administer large doses, especially to children.

In salicylic acid we have a drug of value ; we might say a specific, but along with its merits we find well marked disadvantages, and the problem heretofore presenting itself for solution has been, how best to rid the remedy to its defect without impairing its efficacy. Owing to the irritating action of salicylic acid upon the mucous membrane of the stomach, salicylate of sodium was proposed, but it was found to exhibit the same unpleasant after-effects in lesser degree.

The demand for a non-irritating and non-toxic derivative of salicylic acid brought out a number of preparations which pass unchanged through the stomach, and are disintegrated in the intestinal canal. In some of these, however, the salicylic acid is not present in sufficient proportion to exert its specific anti-rheumatic action, while in others it is combined with other substances which may have a deleterious effect. A remedy devoid of these defects has finally been found, which results from the action of acetic acid anhydric upon salicylic acid, which has been given the name of aspirin. Aspirin undergoes little or no change in the stomach, but is decomposed in the small intestine, liberating the salicylic acid in a nascent state, leaving the acetic acid to combine with alkalies present to form the beneficial compounds of sodium and potassium acetate.

Repeated trials of sodium salicylate in the rheumatism of children, or "growing pains," have convinced the writer of its efficacy to abort an attack, but have also emphasized some of its unpleasant after-effects. Further, it was noticed that it did not prevent cardiac complications or recurrences of the malady. After much search for something better, and after reading the observations of others with aspirin in the rheumatism of adult life, I was induced to try it in cases of "growing pains," with the results herewith appended, the cases being taken at random :

C. P., boy six years old, of healthy parentage and fully developed for his age. He had suffered from pains in the legs and arms with occasional muscular spasm every night for more than a week. The hygienic surroundings were good. He had been doctored with home remedies under

the instructions of a "granny," but the pains became more excruciating each succeeding night. When first seen the temperature was slightly elevated, the skin dry, the pulse 120; the heart sounds muffled and faint. The child had no appetite and was peevish and cross from loss of sleep. The bowels were constipated. There was no indication of redness or swelling at any point along the extremities or around the joints. Sodium salicylate was prescribed in ten grain doses, thrice daily. After two days there was no pain at night, but headache, tinnitus aurium and appreciable deafness and irritable stomach. The salicylate was discontinued in the morning with instructions that the patient take nothing but nourishment. Recurrence of the pains took place that night, but the deafness, tinnitus and headache were better the next morning. I left five grain powders of aspirin to be given every three hours, and two cathartic granules to be taken at night. The father reported the next morning that the patient had slept well, and was free from pains; he had sweated freely, the bowels had moved, and he was playful and cheerful. Since then, three months ago, the child has enjoyed good health.

I. G., girl, 15 years old, stout, well developed, with every indication of complete puberty, except that she had never menstruated. Her previous health had always been good. She was first attacked with pain, heat and swelling in the right ankle, which disappeared the next morning to reappear in the left wrist, where it remained for two days, but left that location and affected the left ankle. The same "granny" diagnosed the case as "growing pains," the difference in character from the boy's case being due, in her opinion, to the girl's age. A brother physician was called and pronounced the affection angio-neurotic edema, depending upon the approaching menstrual period. Eight days after the onset I was called to see the girl during the absence of the other physician. My diagnosis was acute rheumatoid arthritis. (The family lived in rooms over a cellar half full of foul water). The temperature was $101\frac{1}{2}$; hot dry skin, headache, backache, constipation, no appetite and general lassitude were present. I placed her on 15 grains of sodium salicylate immediately before each meal and at bedtime, with constitutional treatment of hematic hypophosphites, and a compound cathartic pill (improved U. S. P.) every night as necessary for the constipation. Forty-eight hours later much amelioration of the symptoms had occurred, but the patient

complained of headache, tinnitus and difficult hearing. I ordered the hypophosphites to be continued, but substituted aspirin for sodium salicylate. In forty-eight hours more the young lady remarked that she was well again. The hypophosphites were administered for some time, and she menstruated about one month after first consultation. There has been no recurrence of the pain and swelling. I am thoroughly convinced that from the onset the arthritis was of such severity that it would have required more of the salicylate to effect a cure than the patient could have tolerated.—*Pediatrics.*

Progress of Medical Science.

MEDICINE AND NEUROLOGY

IN CHARGE OF

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THE VULNERABILITY OF THE APICES IN TUBERCULOSIS OF THE LUNGS.

E. H. Colbeck and Eric Pritchard, in *The Lancet* of June 8, 1901, discuss the question of the vulnerability of the apices of the lungs in tubercular disease. Statistics show that from 60 to 80 per cent. of the cases of pulmonary tuberculosis begin in the apices and that the lesion is rather more common upon the right than upon the left side, it being in the proportion of three to two. There is no agreement between different observers as to the cause of this preference for the apex of the lung. It has been held by some that the lessened movements of the upper part of the chest give rise to a stagnation of the air in the upper part of the lung, and consequently tend to favour the development of the infection in this situation. It is by no means certain that the movements of the upper part of the chest are relatively less than they are in the lower part; even if they were, the lessened movement does not account for uniform location of the initial lesion from one to two inches below the summit of the lung. Another theory is that the air cells in the apex are more readily collapsed and become choked with secretion; and still a third is that foreign matter obtains more ready entrance to the lung because of the potency of the bronchial

tubes of the apex. A study of the dynamic relations of the air in the upper portions of the lungs disproves both of these explanations.

Woods Hutchinson has studied the subject in reference to its comparative pathology. He argues that the upper portions of the lungs are the most unstable and possess the least vital resistance, and that the right lobe is more unstable than the left. A mechanical explanation of the frequency of apical tuberculosis is found in the fact that the lungs project in the dome-like cavity above the first rib. The covering of this portion of the lung is not firm, but a loose layer of fascia, muscle and skin, which under the most favourable circumstances offers a comparatively feeble support. It is apparent from this arrangement that the movements of the upper portion of the lung must be inverted—that is, that there is a tendency to be drawn into the thorax during inspiration and to be pushed out during expiration. With increasingly deep inspirations inflation of the apices becomes notably lessened, as is shown by the rise of pitch in the percussion note obtained in the supra-clavicular fossa. If the support afforded by the soft parts is diminished, inspiratory inflation of the apices becomes correspondingly lessened; and, if the support still further decreases, there must come a time when the upper portion of the lung will no longer inflate. Attention is called to the so-called phthisical chest, with its forward displacement of the shoulders and the poorly-developed muscles which act upon the shoulder girdle. These conditions all favour that inverted movement which tends to a stagnation of the air in the apex. The greater vulnerability of the right apex as compared with that of the left is due to the fact that the right lung rises higher into the neck than the left, consequently the muscular insufficiency which favours stagnation would act with relatively greater force on the right side.

The practical bearing of these studies is pointed out by the authors and Woods Hutchinson, namely, the importance of developing the muscles at the shoulder girdle by such exercises as tree-climbing, the horizontal ladder, etc. Muscular movements, which bring into play the great pectoral muscles, should be systematically carried out.—*Medicine*.

APPENDICITIS.

Surgical Treatment.—After a second catarrhal attack the operation for removal of the appendix when possible

should be done after all acute symptoms have subsided, and after the patient has been carefully prepared for it. The diet for four days ought to consist of soups, barley-water and white meats, avoiding milk and starchy foods. The bowels should be regulated so that they are thoroughly moved the day before operation. The usual arrangements for the preparation of the skin are carried out; three ounces of soup with a tablespoonful of whisky are given as a nutrient enema three-quarters of an hour before operation, and a subcutaneous injection of 1-30 grain of strychnine, which materially diminishes shock, and this may be repeated in the middle of the operation if necessary. An incision, varying in length from two to three inches, according to the stoutness of the patient, is made on the outer side of the rectus muscle over McBurney's point, dividing skin and fascia; the muscles are then separated, not cut, and the peritoneal cavity carefully opened in the usual way; a small sponge with string attached is introduced into the abdomen; all small vessels are then tied in order to get rid of the pressure forceps in the neighbourhood of the wound, as they might bruise the bowel if it requires to be drawn out in the process of separating the appendix. Removing the sponge from the abdomen, the appendix is found in connection with one of the longitudinal bands passing downward, inward or backward, and, with care, it is separated. At times it is so adherent that it is wiser to leave it alone and trust to the effect of the exploratory incision. Having separated the appendix and tied its mesentery, it is removed.

The after-treatment of patients who have had this operation performed is the same as is used in other abdominal cases. The patient is to be gently kept under the influence of morphine for two days, and only soups and barley-water (starvation diet) are to be given. After the bowels have been moved on the sixth day, a more generous diet is allowed, and in three weeks the wound will be firmly healed, and the patient be allowed to be on the sofa wearing an elastic bandage. At the end of the fourth week, if the wound has been small, walking about moderately is permitted, and gradually the patient resumes his ordinary work. Generally great improvement in health follows this operation. J. C. Renton, (*Brit. Med. Jour.*, May 25, 1901.)

LARYNGITIS, ACUTE.

Treatment.—Abortive treatment is to be tried and the patient will be materially helped by the inhalation of sooth-

ing vapours, such as compound tincture of benzoin, vapourized with boiling water and oil-sprays. If the patient's relief is sought after the attack has been in progress one or more days, by which time the inflammation has become somewhat sub-acute, very much can be done to relieve the hoarseness and cough by spraying the larynx with 5 per cent. alumnol, followed by an oil-spray. Cocainizing the larynx and then spraying with 2 to 3 per cent. nitrate of silver, while productive at the moment of considerable discomfort, materially hastens the progress toward recovery. The use of the galvanic current from 8 to 10 milliamperes, the sponge electrode being held on each side of the larynx and the current continued for about ten minutes, helps the effect of the preceding remedies. For the troublesome cough, preparations of ammonia, either in the form of muriate or the hypophosphite of ammonium, are especially serviceable; and, for the rasping, tickling cough, no sedative is so valuable as codeine in doses of from 1-25 to 1-5 grain combined with muriate of ammonia, and repeated as may be needed. G. L. Richards (*Inter. Jour. of Surg.*, July, 1901).

CARDIAC DRUGS AND THE VASOMOTOR TREATMENT.

Seeing that circulatory disturbances have for result to determine an unequal distribution of blood in the organism, the object of cardiac and vasomotor treatment must be to restore the equilibrium thus destroyed.

Paralysis of the blood vessels, due to the insufficient central innervation of the vasomotor centres, causes the blood to flow into the abdominal vessels, while the peripheral vessels and those of the skin and brain are depleted, the pulse is feeble and the heart only receives an inadequate supply of blood during diastole. This variety of circulatory inadequacy occurs in cases of intoxication resulting from the use of narcotics and during attacks of infectious disease. In such cases the exhibition of cardiac drugs would generally be without effect, since it is not the strength of the heart that is lacking, but that the quantity of blood which it receives is insufficient. But the blood withdrawn from the action of the heart and accumulated in the dilated vessels of the abdomen can be brought back into the general circulation by the use of drugs acting upon the vasomotor system, through which

they give rise to contraction of the vessels in the splanchnic area. To obtain this result, strychnine, camphor and caffeine are prescribed. Much the same result may be obtained by irritating the skin, or by making cold applications.

Cardiac drugs are used for the purpose of restoring the energy of the heart. They increase the volume of systole, and in this manner tend to remedy the defective distribution of the blood in the organism, which is the usual consequence of most complaints of the heart, accompanied by a diminution in the energy of this organ, an accumulation of blood in the venous system and anæmia of the arteries being the inevitable result of incomplete systole and of insufficient ventricular diastolic aspiration.

Digitalis acts chiefly by strengthening the energy of the heart; its vasomotor effect is of secondary importance. From experiments made on the heart of a frog, it was long since observed that the cardiac systole increases, and that the energy of the ventricular contraction is strengthened under the influence of digitalis. Recently we have succeeded in making the same experiment on warm-blooded animals in whom the heart was protected from the variable resistance of the general circulation. We are, therefore, no longer compelled to base our conclusions on experiments made upon frogs. By isolating the cardio-pulmonary circulation, following the example of François-Franck and of E. Hering and Bock, we are enabled to study the action of digitalis on the heart, independently of its effect on the vessels; we can also make use of a separated heart, in which the functions are maintained by an artificial circulation through the coronary vessels. I have been able to afford direct proof by this latter method that an increase in the volume of the systole takes place, and by the aid of a special arrangement I satisfied myself that after a dose of digitoxin the energy of the ventricle is trebled or quadrupled.

The increase in the volume of the systole is caused more particularly by a more complete contraction of the cardiac muscle, the ventricle emptying itself with greater facility. The action is the more important in connection with an ailing heart since a failing ventricle becomes less and less capable of getting rid of its contents. Moreover, the slight diminution in the frequency of the pulse, due to the stimulation of the pneumogastric, which occurs in addition to the more strictly cardiac effect under the influence of digitalis, has a beneficial influence on the cardiac function. The

diastolic aspiration of the blood of the veins into the cardiac cavity is also favourably influenced by this slowing of the pulse. Consequently the efficacy of digitalis becomes very evident, in proportion as this slowing effect is manifested. The maximum effect of this treatment corresponds to complete expansion of the ventricles during diastole, plus a maximum contraction during systole. The heart in this way pumps a greater quantity of the blood which is contained in the over-filled veins, and propels it into the bloodless arteries.

All drugs acting in a manner analogous to digitalis have, in addition to the action on the heart, a vaso-constricting effect, as I was able to demonstrate anew in my recent experiments. But this vasomotor action is accessory, from a therapeutical point of view; the important factor in combating venous stasis is an improvement in the cardiac function. The vascular contraction may be of some utility in the sense that the blood is thereby driven out of the congested portal system into other parts of the vascular system, for, in the first instance, it is principally on the portal vein that the vascular action of digitalis is produced; but, if this contraction exceeds certain limits, its beneficial effect is transformed into one very inimical to the organism, since, in consequence of the rise of arterial resistance, the work of the heart is needlessly increased.

Camphor does not only act on the heart indirectly through the vasomotors, it also directly increases the irritability of the cardiac muscle. Its action on the normal heart is little marked; on the other hand, I was able to convince myself in the case of the rabbit, that under certain pathological conditions, when the heart ceases to beat, it is possible by the application of camphor to combat this momentaneous stoppage and to save the rabbit's life.

Caffeine has a direct effect on the heart, but one quite different from that of digitalis, nor can it be considered as a substitute for the latter. As a matter of fact it does not increase the functional energy of the healthy heart in cases where the blood tension is normal, but it strengthens the action of the cardiac muscle in the presence of a pathologically high arterial resistance; it may also be useful in cardiac complaints accompanied by a high aortic tension.

Alcohol has not a direct influence over the heart; it acts indirectly on this organ by diminishing the peripheral resistance, when in consequence of an exaggerated aortic tension

the left ventricle can no longer completely empty itself. In this case it causes the vessels to dilate, and the resistance to diminish, and as a result whereof the heart carries on its work under more favourable conditions, and is enabled to furnish a greater amount of work.

The various cardiac drugs, it will be seen, act on the circulation in quite a different manner to those which act in the vasomotor system. In spite of the difficulties that present themselves in the study of so complicated a mechanism, we may hope that by associating clinical observation with experimental pharmacology we may succeed, little by little, in gaining a deeper insight into the nature of the circulatory troubles which present themselves to our notice, and to choose with more discernment the treatments capable of combatting these troubles and of restoring the equilibrium.—Prof. Gottlieb, of Heidelberg, in *Medical Press and Circular*.

ADRENALINE, THE HAY-FEVER SUBJECT'S FRIEND.

With adrenaline in its present manageable state we may expect to at least make our hay-fever patient comfortable in one particular, that is, we will enable him to keep the nasal passages open, and we can also prevent him from having red eyes. Until the chloride of adrenaline made its presence on the market, other preparations were handled with difficulty and probably with some uncertainty. The chloride, however, seems to be uniform in its action, and can be relied upon. Its power to blanch the mucous surfaces is certainly very great.

In a recent case of traumatic keratitis, in which not only the cornea was involved, but the conjunctiva covering the sclera had been injured and was in a high state of inflammatory action, the engorgement was as great as it is possible to be without effusion. Two or three drops of the solution of the chloride of adrenaline, 1 to 5,000, instilled into the eye, blanched the conjunctival surfaces within less than three minutes. This blanching remained fully one-half hour when the agent was again applied with the same result, with the exception that the action was more prolonged.

In cases of edema of the larynx, this solution sprayed into the throat affords prompt relief, which lasts for a variable length of time, from one to three hours. Its application to the nasal mucous membrane rapidly reduces its congestion, the relief being prolonged from forty minutes to three or

four hours, depending largely on the condition of the mucous membrane; if much relaxation, the effect is less and the duration shorter.

I have not had opportunity to try it sufficiently in the hay-fever patients, but there is no question in my mind but what it will be the remedy by keeping the nasal passages open. The desiccated adrenals may be used one to five thousand in milk, sugar, or in combination with powdered borax of same quantity, and used as a snuff every two to three hours or as needed for the purpose of maintaining freedom of the passages. It enables us to do bloodless operations upon the nose, which, of course, gives much more space to work in and makes operative procedure in this locality possible, when it might otherwise be impossible or difficult, although sometimes free bleeding occurs several hours after the operations. It also enables us to do bloodless operations on the eyeball, and other minor operations on almost any mucous surface. I do not see why it would not be of great value in acute urethritis, and in fact it ought to be of value to the genito-urinary surgeon in many operations, as in the diagnosis and treatment of stricture, etc.—*American Practitioner*.

DISINFECTION OF TYPHOIDAL EXCRETA.

N. B. GWYN (*Philadelphia Medical Journal*, January 12, 1901), after insisting upon the importance of infected typhoidal urine in the dissemination of typhoid fever, reports his results in studying the effects of various antiseptics upon urine containing typhoid bacilli. In conclusion, he states that milk of lime is not deserving of the name of disinfectant. Carbolic acid is useful only in large amounts and in strong solution if a rapid action is desired. Formalin is efficient, but very expensive for ordinary use. Bichloride of mercury, chlorinated lime and liquid chlorides are very valuable, are rapid in action, and are efficient in comparatively dilute solutions. For disinfection within five minutes he states that of a 1 : 20 carbolic-acid solution one needs half the volume of the urine to be disinfected; of a 1 : 40 carbolic-acid solution one should use two-thirds of the volume of urine to be disinfected; while of a 1 : 1000 bichloride of mercury only one-fifth the volume of urine is necessary; of a 10 per cent. formalin solution, three-tenths the volume of urine should be used; of saturated chlorinated lime one-fortieth the volume of urine, and of liquid chlorides two-fifths the volume

of urine. He states that the disinfection seemed to be quite as rapid in urines containing albumin as in those free from albumin. For irrigation of the bladder he states that solutions of bichloride in strengths of 1 : 100,000 to 1 : 50,000 are most successful. He considers urotropin the only substance which produces any effect when given by the mouth.

TREATMENT OF INSOMNIA.

Dr. G. Lyon, speaking of the general lines of treatment, says that hygienic measures occupy a foremost place. Alcohol, tea, coffee and tobacco should be stopped, and the diet regulated. It is unwise to permit such patients to eat too heartily, and all foods which have been found to digest slowly should be avoided. This is of importance, as patients should not be permitted to sleep while digestion is going on. The temperature of the sleeping room should not be above 60° F. It is inadvisable to have a fire in the room, and the windows should be open. From the standpoint of medicinal treatment he recommends for simple insomnia trional, chloralose, urethane, amylene hydrate and somnal. In conditions accompanied with fever potassium bromide with a small amount of morphine is one of the best hypnotics. In insomnia from pain he recommends morphine hypodermatically, chloral, combined with morphine and hypnal, being analgesic from the antipyrine it contains. In certain special forms of insomnia definite medication is advisable; thus for tertiary syphilis potassium iodide is of more value than hypnotics; in cardiac diseases, circulatory remedies; in paludal poisoning, quinine sulphate; in Bright's disease, a milk diet; in tuberculosis, morphine is of more value, and in insomnia of dyspeptics, dietary regimen.—*Revue de Thérapeutique*, 1901, vol. lxviii., p. 178.

SURGERY.

IN CHARGE OF

ROLLO CAMPBELL, M.D.,

Lecturer on Surgery, University of Bishop's College; Assistant Surgeon, Western Hospital;

AND

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Instructor in Surgery, University of Bishop's College; Assistant Surgeon, Western Hospital.

TO REMOVE POWDER STAINS.

Dr. C. R. Clark reports a case of severe powder burn of the face in which he succeeded in removing all the staining re-

sulting from the imbedded grains in less than two days by the application of three parts of hydrogen dioxide and one part of glycerine. He gives the credit for this treatment to Dr. J. Neely Rhoades, of Philadelphia, who several weeks ago by the use of undiluted hydrogen dioxide successfully removed powder stains from the face of an Italian woman in whose case other methods of treatment had entirely failed of success.

—*American Medicine.*

TREATMENT OF SPRAINS.

Dr. Haldor Sneve contributes an exceedingly interesting article on the treatment of muscular and joint sprains. He objects to the method in common use of immobilizing the joint, on the ground that immobilization for a considerable time produces passive inflammatory changes and favours absorption of the synovial fluid, with roughening of the joint surfaces, and also atrophy and contraction of the muscles of the part together with absorption of the fat and areolar tissue around the ligaments and tendons.

His routine method of treatment in these cases is elevation of the part, the application of a wet cheese cloth dressing and an ice bag until the height of the inflammatory process is reached. Then, after the subsidence of the acute symptoms, he uses hot fomentation and massage to assist the removal of inflammatory products. As soon as possible he has the patient take active exercise. By this treatment he believes that the time ordinarily required for recovery can be shortened at least fifty per cent.—*Journal of the American Medical Association.*

THE PRIMARY TREATMENT OF INFECTED WOUNDS WITH TINCTURE OF IODINE.

Carl Beck, New York, holds that it is yet practically impossible thoroughly to disinfect a wound, in the common sense of the word, after infection has occurred. A drug which would penetrate the deeper layers of the infected tissue, as the Röntgen rays do, is a great desideratum. The tincture of iodine is an antiseptic which, to some extent, possesses a permeating power. It was originally used only for the disinfection of the skin and the deep-skin bacteria, but the author has used it methodically in all infected wounds. Practically all wounds which are not inflicted by the aseptic surgeon on an aseptic field are to be regarded as infected. The tincture was liberally applied once over the carefully dried wound-surface. Fifteen minutes afterwards

examination of the tissues showed the evidences of permeation, and no cultures could be obtained from such areas. While this does not prove that bacteria were destroyed in these regions, it can be assumed that the soil was rendered unfavourable for their further development. No general disturbance was observed in a large number of patients in whom the iodine treatment has been tried, although in two cases iodine reaction was found in the urine three or four hours after the application. The further treatment was carried out on general principles. All the cases treated in this manner ran a favourable course.—*New York Med. Rec., St Louis Med. Review.*

THE PREVENTION OF POST-OPERATIVE ADHESIONS OF THE PERITONEUM.

G. G. Ward (*Amer. Jour. Obstet., etc.*, Vol. 43, No. 6) gives the following as a summary of the means adopted for the prevention of post-operative adhesions of the peritoneum :

1. The attainment of asepsis, as perfect as is possible, by the rigid adherence to the most modern methods of securing surgical cleanliness.
2. The avoidance of raw surfaces and pedicle stumps by covering them with peritoneum or grafts of omentum and the abandonment of the ligature *en masse*.
3. Protection from dry-air contact by the employment of *moist asepsis*, instead of *dry asepsis*, and keeping the exposed parts covered whenever possible.
4. The time element—rapidity of operating by technical skill, thorough preparation and trained assistants.
5. Keeping up the heat of the peritoneal cavity by frequent renewal of the hot salt solution (115°F.) and by protection of the exposed parts.
6. Avoidance of excessive manipulations of the intestines by technical skill, proper ante-operative preparation of the bowels and posture, to prevent pseudo ileus.
7. Replacement of the loops of intestine and omentum by filling the abdominal cavity with hot salt solution before closing, and thus floating them, that they may more readily adjust themselves in their proper relations.
8. Free motion of the patient after the operation to be encouraged instead of prohibited.
9. Early use of the high enema (during the first twelve hours), in conjunction with cathartics, and, on failure, the prompt use of oxygen in the Trendelenburg posture.—*Memphis Med. Monthly.*

INGUINAL HERNIA IN THE FEMALE.

From the literature on the subject the author is convinced that treatment of inguinal hernia in the female has not yet received its proper attention. He believes that female children should be operated upon, because the rupture persists after years of truss treatment in a considerable number of cases. When the hernia develops in youth or early adult life, the truss treatment rarely succeeds. Surgeons are not decided as to the best method of operating upon this variety of hernia.

The author presents the results of his operation in 123 personal cases. Championnière was the first to point out the advantages of operations in this class of cases. He advocated incision of the round ligament along with the sac.

The author does not agree with Howard Kelly in the opinion that the removal of the sac is of little importance, especially in small herniæ. He thinks that opinion erroneous and likely to do much harm, and he cites a series of cases of hernia in children observed at the Hospital for Ruptured and Crippled during 1888 and 1889 to show that the removal of the sac is of the greatest importance. He does not believe that it is necessary to transplant the round ligament. It complicates the technic of the operation, and perfect results can be obtained without it. The method which he has used in his cases is practically Bassini's as performed in the male, the 123 single step of transplanting the cord being omitted.

He uses rubber gloves for his assistants and coats or gloves for himself. He cites the bacteriological finding in thirty-five examinations of scrapings beneath the nails, all showing the importance of wearing rubber gloves. He believes that kangaroo tendon, as prepared by Van Horn & Company, is the best material for the use in hernia.

His results are as follows: One hundred and twenty-three cases of inguinal hernia in the female without mortality. Ages ranged between four and seventy years. 73 under fourteen years of age, 50 between fourteen and seventy. In eight cases, or 65 p. c., suppuration occurred limited to stitch hole infection. Average time patients were kept in bed, ten days; allowed to go home, two weeks. A spica bandage was kept on for two weeks longer.

He has traced all but thirteen cases. One well seven years after operation; two, six years after operation; five for five years after operation; fourteen, three to four years after

operation ; twenty-seven, one to two years after operation. Sixteen, six months to one year after operation. Two died one and two years after operation without recurrence. Thirteen not traced and the remainder too recent to be considered. No relapse has been observed.

Comparing these results with the results of operations for inguinal hernia in the male, we see that the prognosis is even better in the female.

In conclusion he says: My own results show six relapses in 545 cases of inguinal hernia in the male, operated upon by Bassini's method.—Wm. B. Coley, *Annals of Surgery*.

DRAINAGE OF WOUNDS.

Paul Morf, in the *Bulletin of the Northwestern University Medical School* of January 31, 1900, says that wounds may be divided with reference to drainage into two classes : first, those which are aseptic ; secondly, those which have been infected, or are made to relieve suppurative conditions. In the vast majority of cases drainage is unnecessary in aseptic wounds. The danger of drainage is due to the fact that the skin contains normally germs which cannot be wholly removed. The drain, whether capillary or tubular, moistened by secretions, is a ready pathway for the entrance of such infection from the surface to the deeper structures. Aseptic wounds in which no antiseptics have been used have, as a rule, little oozing. Healthy tissue can take care of a large amount of extravasated blood and lymph. Drainage in aseptic cases is limited to those cases where there has been much traumatism, and where large areas of lymphatic vessels have been opened. Examples of this class of wounds are furnished by amputations of the breast with their attendant dissection of the axilla, amputations of the thigh and hip and extirpations of tubercular lymphatic glands. Another class of cases is where there remain "dead spaces" which cannot be obliterated by deep sutures or other means. Examples of these are furnished by unilateral thyroidectomy and operation for carcinoma of the rectum. In most of these cases twenty-four hours is a sufficient time to leave the drain in position. At the end of that time the tissues have accommodated themselves and the dead spaces are obliterated.

In infected wounds, and those made for the relief of septic foci, drainage is demanded almost without exception.

Drainage of abscess empyemas and suppurating joints should be made in the location which gives the best possible escape to the secretions. A good sized fenestrated rubber tube is to be preferred, which, if possible, is to be carried through the cavity and out at a counter-opening. As the suppuration lessens this is to be replaced by a drain of iodoform gauze.

In the relation of drainage to the abdominal cavity it is difficult to make a general statement, but drainage is useful when pus is found free in the peritoneal cavity, as in cases of acute suppurative peritonitis; where there is localized pus formation, the suppuration being walled off by adhesions—this class of cases includes appendicular abscess, pelvic disease and pus tubes. Drainage must also be employed in the removal of pus from a hollow viscus.

PANCREATITIS.

Only recently have clinical observers noted that whatever obstructs the common bile duct at its lower end must also of necessity lead to an obstruction in the pancreatic duct. Since Charcot described the disease as intermittent hepatic fever, infection and suppurative cholangitis have been well recognized by pathologists, yet infective and suppurative catarrh of the pancreatic ducts has received, until quite recently, no attention.

When the common bile duct is obstructed, jaundice at once demonstrates the fact. Hitherto, however, no pathognomonic sign has been discovered which will conclusively show that the pancreatic ducts are occluded, unless it be the extremely rapid loss of weight. The presence of fat necrosis affords some clue, discovered, however, only when the abdomen is opened. Glycosuria, lipuria and fat in the stools seldom occur, but when present are of great diagnostic importance.

Acute, so-called, hemorrhagic pancreatitis often follows slight injury to that gland.

The essential and immediate cause of the various forms of pancreatitis is bacterial infection, this having been proved both clinically and experimentally.

The extrinsic causes of pancreatic disease embrace biliary and pancreatic lithiasis, injury, gastro-duodenal catarrh, ulcer and cancer of the stomach, pylorus or duodenum, and zymotic diseases, such as typhoid fever and influenza, though in some cases pancreatitis has come on suddenly in persons

of robust health, the cause being beyond recognition. The infection may arise from the blood, as in pyemia, or by direct extension, as in ulcer of the stomach, yet the more usual channel is through the duct, as in cases with gallstones in the common duct and from gastro-duodenal catarrh. Inflammatory enlargement of the head of the pancreas is a common concomitant of gallstones in the common duct. If common-duct cholelithiasis can give rise to chronic pancreatitis it will be also likely to induce subacute and acute forms of the disease.

Fat-Necrosis.—By fat-necrosis is understood splitting up of the fat into fatty acids and glycerine. The latter is absorbed, but the acids, being insoluble, remain in the cells and unite with the calcium salts, forming yellowish-white patches of various sizes in the subperitoneal fat, and in the omentum, mesentery, etc. Experiments by Opie, who ligated the pancreatic ducts in the cat, go to show that widespread fat-necrosis may be expected to follow very rapidly.

Fat-necrosis is commonly found in association with diseases of the pancreas, but is also found in other ailments, and is not always found in all acute pancreatic diseases.

Hemorrhage in Pancreatic Diseases.—Local hemorrhages into the pancreas may occur apart from injury and apart from any general hemorrhagic tendency. Sometimes these spontaneous hemorrhages are recovered from, but usually they lead to death from collapse, either immediately or after some hours. Experience has shown that in operations on deeply-jaundiced subjects there is much less danger of serious hemorrhage when the jaundice depends on gallstones than when it depends on pancreatic disease. It is well before operating on such cases to administer chloride of calcium in 30 to 60-grain doses thrice daily for from twenty-four to forty-eight hours previous to the operation, and by enema in 60-grain doses thrice daily for forty eight hours afterward. This is usually successful in preventing hemorrhage. These conclusions have been arrived at concerning the relation of hemorrhage and pancreatic disease :

1. That in certain diseases of the pancreas there is a general hemorrhagic tendency, which is much intensified by the presence of jaundice.

2. That hemorrhage may apparently occur in the pancreas unassociated with inflammation, or with jaundice, or with a general hemorrhagic tendency.

3. That both acute and chronic pancreatitis can and do frequently occur without hemorrhage.

4. That some cases of pancreatitis are associated with local hemorrhage.

Inflammations of the pancreas may be classified as acute, subacute and chronic, hemorrhagic pancreatitis being classed as acute, the hemorrhage being merely an accident in the course of the disease.

Treatment of Acute Pancreatitis.—The pain at the onset is often so acute as to demand morphia, and later the collapse will need stimulants. The septic matter must be evacuated and free drainage given. Early exploration from the front through the middle line above the umbilicus or from behind through the left costovertebral angle is demanded. The after-treatment consists in combatting shock and keeping up the strength.

Treatment of Subacute Pancreatitis.—This form is more amenable to treatment. Morphia and stimulants may be required. Constipation must be met by calomel and saline aperients, and, as diarrhœa often follows, salol and bismuth, with small doses of opium, may be given. Distension, if present, is relieved by lavage of the stomach or by turpentine enemata. If surgical treatment is decided on the incisions are made as in the acute form, and any incipient collection of pus drained and the cavity packed.

Treatment of Chronic Pancreatitis.—Abdominal section and drainage are indicated. The drainage in these cases is indirect, and obtained by draining the gall-bladder by cholecystotomy, cholecystenterostomy or duodeno-choledochotomy. The results of treatment in this class of cases have been most encouraging, as out of twenty-two cases operated on only one died directly from the operation. Those recovering from operation, with the exception of two that died a few months later, made complete and perfect recoveries.—A. W. Mayo Robson, in *Philadelphia Medical Journal*.

INJURIES OF JOINTS.

WITH SPECIAL REFERENCE TO THEIR IMMEDIATE AND REMOTE TREATMENT BY MASSAGE AND MOVEMENT.

Both massage and movements have long been employed in English surgery, but lately they have come into much more general use. Both are valuable remedies, but if used as a

matter of routine both may do great harm. As methods of surgical treatment they must always be closely supervised, care being taken to watch their effect, and especially to be sure that no element is present in the case which renders their employment undesirable.

Physiology of Massage.—It is necessary to have a clear idea as to what has been termed the Physiology of Massage—as to the different ways, *i. e.*, in which it acts.

1. It enlarges the amount of blood circulating through the part concerned. This is obviously apparent in the skin, which, instead of remaining cold and pale, becomes warm and more or less red. The same result was experimentally demonstrated in regard to the muscles by Brunton and Tunnicliffe, who showed that the amount of blood passing through them both during massage, and after its cessation, was increased. This increase of blood is in every way advantageous. It maintains or improves the nutrition of all the various tissues; it promotes the restoration of the functional activity of injured muscles, and it plays an important part in the absorption of lymph and extravasated blood.

2. Its action is mechanical. By kneading and percussion, extravasated blood and lymph which have been coagulated in the tissues, and have led to brawny œdema, are broken up and dislodged, while by stroking from below upwards they are swept onwards and brought within the reach of healthy lymphatics and a normal venous circulation, so that they can more readily be absorbed.

3. It is an efficient stimulant to damaged muscles through its influence on the nervous system. In such minor injuries as sprains and contusions, probably the small nerves ramifying in the injured part are seldom torn across, for they are tough rather than brittle, they are well protected in the subcutaneous tissue and the deeper structures, and their course is tortuous, so that they are quite easily put on the stretch. Nevertheless they are not infrequently so far injured that their functions, for the time being, are more or less suspended, and massage is then a very useful agent in stimulating them to a resumption of activity. It probably acts in a similar manner on the vaso-motor nerves, which preside over the arterial system of the part.

4. No one who has watched its sedative effect when applied in cases of recent injury can doubt the influence of massage in reducing muscular spasm and relieving pain. Here it must be used very gently and be limited to stroking and

light friction for short periods, three or four times a day.

5. Probably massage promotes the absorption of recently formed adhesions, provided they are not too extensive and firm. This is a matter of considerable interest. Just as provisional callous, formed in the repair of fractures, is absorbed, so is the new connective tissue which is developed after injury of the soft parts. Perhaps the most obvious instance of this is met with in the case of adhesions following peritonitis. Even extensive adhesions gradually yet completely disappear, probably as the result of constant disturbance and traction during peristalsis. Much the same result is produced by what may be termed the interstitial disturbance and traction which takes place during the different movements employed in massage.

As to Movements.—These are of three kinds: those performed under an anæsthetic; passive movements and voluntary movements on the part of the patient, often carried out against resistance. As to movements under an anæsthetic—they can be safely applied only when a careful diagnosis has been made. In the first place it must be ascertained that the joint itself is not, nor has been, actively diseased, so that it has undergone no considerable structural changes, such as follow tubercle, or osteo-arthritis, septicæmia or locomotor ataxia. The cases in which this form of movement is most successful are those in which the joint itself is practically healthy, while it is hampered by changes in the parts around. Passive movements are chiefly useful in restoring movements that have been lost, or in preventing stiffness in joints which are to be long disused; for instance, a healthy ankle, the patient having disease of the hip or knee. Voluntary movements on the part of the patient, especially when performed against resistance, are in many instances more valuable than massage. Several forms of apparatus have been introduced for use in these movements, and many of them are very satisfactory. In all cases, however, efficient supervision must be maintained.

Diagnosis.—Diagnosis is, of course, of essential importance. It cannot always be exact, but it must be carried far enough to indicate that the case belongs to the general class in which these agents are useful, and that no element is present which renders them unsuitable. The conditions for which massage and movements are suitable are sprains and contusions of previously healthy joints unattended with any serious complication such as dislocation or a fracture, any

wide laceration of muscle, rupture or displacement of tendons, or such pre-existent conditions as tubercule, gout or hæmophilia.

The treatment of recent fractures by massage was so fully discussed at the meeting last year at Ipswich that it is needless to consider it now. The after treatment of dislocation has of late years undergone a great and very advantageous change. In the case, *e. g.*, of the shoulder, the arm is no longer bandaged to the side for a fortnight or three weeks, but passive movements and massage are regularly used after the second or third day. I have seen a patient thus treated able to move his arm freely in every direction in the course of three weeks. I have also seen a patient walk freely and without lameness three weeks after the reduction of a dislocation of the hip. The chief symptoms which indicate the use of massage and movements are stiffness and pain; but before they are employed the cause of the symptoms must be ascertained, as to whether the mischief is inside or around the joints. Take the shoulder. The arm may be stiff and there may be severe pain and marked muscular wasting. Is this a case of disease of the joint itself or of adhesions outside? There is, I believe, only one test to be relied on to determine this question. This is to ascertain whether the joint is as stiff as it at first sight appears to be, or whether, within certain limits, movements are free and smooth. If these free and smooth movements—limited though they be—are present, the fact is a strong indication that the joint is sound, and that the symptoms depends on surrounding adhesions. Cases in illustration are related. As to pain it is very important to remember that it cannot be used to differentiate between real joint disease and surrounding adhesions. Indeed, in many cases the relaxed pain due to adhesion is more severe than that produced by joint disease. Muscular wasting—a principal symptom in disease of a joint—may be present, though the case is one of mere adhesion in the capsule and surrounding parts. In some instances movement under an anæsthetic will produce a cure which there seemed at first sight no reason to anticipate, for though the patient complains of “weakness” and pain in the joint there is no appreciable stiffness or any condition for which movement and massage seem called for. These cases, which bone-setters not rarely cure, by moving them as they move all others, are instances of slight adhesions which cannot be detected, but which are yet sufficient to make the patient walk with lame-

ness and "weakness" of the joints concerned. Cases are related to illustrate this group. Howard Marsh; F. R. C. S. —*Medical Press and Circular*.

ANY DECREASE

in the normal activity of the nerves or nerve-centers means constipation. This author studied cases of abdominal section, and concludes that (1) in acute pelvic peritonitis, both enemata and drugs by mouth shall be used to produce catharsis before operation; drugs by mouth and oil per enemata after operation. (2) In all acute inflammatory conditions in the abdomen in which the alimentary tract is involved the bowels should be moved by enemata alone before and after operation, the enema of salts, turpentine and glycerine being the best.—*Boston Medical and Surgical Journal*.

CATHARSIS IN ABDOMINAL SURGERY.

Crandon gives the results of observations made during his service as house officer in the Boston City Hospital on catharsis in abdominal surgery. It has been proven by a number of experiments that peristalsis is a reflex action. The lower part of the ilium has been proven to be the place where the contents of the intestine move the fastest. It has been found that the vagus nerve when stimulated directly or reflexly increases peristalsis, and that moderate stimulation of the splanchnic nerve decreases it.—*Interstate Medical Journal*.

DIABETES IN SURGERY.

Robert T. Morris gives three reasons why diabetes interferes with surgeons: (1) The sugar circulation in the blood is hygroscopic, and it draws water from all the body until the tissues are actually dry. This must interfere with the normal process of repair, and it probably does so in several different ways. (2) The surgeon must give these cases his special attention, because the fluids of a wound loaded with sugar are in all probability excellent culture media for bacteria, and are particularly suitable for the growth of bacteria therein. (3) Certain anesthetics may precipitate an impending nephritis because of the unusual labour involved in excreting sugar. In these cases the

author uses nitrous oxide and oxygen instead of the other anæsthetics, especially avoiding the use of ether.—*Interstate Medical Journal*.

ANALGESIA IN CHILDREN BY SPINAL INJECTION, WITH A REPORT OF A NEW METHOD OF STERILIZATION OF THE INJECTION FLUID.

W. S. BAINBRIDGE (*Med. Rec.*, Dec. 15, 1900) reports analgesia produced in seven children by spinal injection of cocaine or eucaïne. The cases ranged from two and one-half to eleven years in age. The youngest patient was injected on three occasions. The amount of cocaine used varied from min. vii to min. xv of a 1 per cent. solution of cocaine and from min. vii to min. xxx of a 1 per cent. solution of eucaïne. Some elevation of temperature, nausea, vomiting and some restlessness were the chief undesirable effects not produced.

These cases were specially selected. The preparation of each was the same as usual before a general anæsthetic. The patient was placed in a sitting posture, well bent forward, and prevented from moving during the injection. After the skin over the site of puncture had been treated in the usual antiseptic way an ethylchloride spray was employed, rendering the introduction of the needle practically painless; no difficulty was experienced in introducing the needle. A point of $\frac{1}{2}$ inch to either side of the median line, and midway between the spinous processes was taken, and the needle pushed forward, inward and upward. Special effort was made to keep away from the central part of the spinal canal by a close relation of the needle-point to the dura. The instrument used was of the simplest kind. A small-sized steel aspirating-needle with a short-bevelled pointed end, having a well-fitted hypodermic barrel, answered every purpose. As nearly as possible the same amount of cerebrospinal fluid was allowed to escape as of the injection medium, which was to be introduced. The injection was given slowly, usually taking one and one-half to two and one-half minutes. Often the first evidence that the cocaine was taking effect was some dilatation of the pupil or a slight nausea.

There have been many cases of failure reported which were attributed to the use of heat in the sterilization of the

injection fluid. This fact led the author early to experiment with other means. About a dram of ether is poured over gr. v of powdered cocaine or eucaine in a measuring-glass, which has been boiled, as well as the glass rod used to mix the ether thoroughly with the powder. The mixing process continues until all the ether has disappeared: Then 1 ounce of boiled, filtered water is added. The solution is made fresh before each operation.

After-effects.—In all cases any after-effects of an unpleasant nature were temporary. The urine on the day following the injection was examined in all cases for sugar and albumin. The result was uniformly negative. In only one case were there any serious symptoms following the operation. This was a high injection, with Pott's disease of the spine, in a patient in bad general condition.

Cocaine versus Eucaine.—His cases so far have proved more satisfactory when cocaine has been employed. The after effects seemed no greater in one than in the other, and the analgesia was not so uniform or lasting when eucaine was employed.—*Pediatrics.*

Therapeutic Notes.

GASTRIC ATONY.

R Liquor potass. arsenit..... ʒss
 Tr. nucis vom..... ʒi
 Vita aurantii (Haber) q. s. ad..... ʒvi
 M. S.: A dessertspoonful in water after each meal (t. i. d.)

OINTMENT FOR VARICOSE VEINS.

R Acidi carbol..... ʒss
 Acidi borici..... ʒiiss
 Camphoræ..... ʒii
 Ichthyol..... ʒv
 Ol. amygdalæ dulc..... ʒiiss
 Ung. zinci oxidi..... ʒiiss

M. Sig.: Apply externally night and morning.—
J. A. M. A.

Jottings.

If you have a patient with persistent loss of voice suspect tuberculosis of the larynx.

Whatever else you do in internal carbolic acid poisoning, give at once a large dose of alcohol—whisky, brandy, rum or gin will answer—and repeat it often.

Many physicians prefer the bromide of strontium to any other form of bromide in the treatment of epilepsy, because it can be continued for months without any of the deleterious effects which attend the use of the potassium salt, and can therefore safely be given in doses large enough to control the fits.

Prof. R. Saundby, writing upon moveable kidney, says that ever since Landau's famous paper moveable kidney has been a favourite subject, that it is frequently discussed, diagnosed even more frequently and very seldom successfully treated. He considers the best course to follow is to cure the neurasthenia on which it depends by prolonged Weir Mitchell treatment, and have the patient wear a comfortable abdominal belt when she gets on her feet.

Abrams recommends the following simple plan for the cure of aphonia. Mark with a pencil upon each side of the neck the points in the thyro-hyoid membrane where the internal laryngeal branch of the superior laryngeal nerves pass into the larynx. Freeze these areas by means of a chloride of methyl spray. The relief thus produced is usually instantaneous, but may be of only short duration, and is due probably to the freezing acting as a shock inhibiting the nerve functions for a variable period.

Dr. Gilchrist, of Baltimore, in a recent paper thus sums up the treatment of acne rosacea. Strict attention to diet, good plain food, avoidance of pork, pickles, salads, highly seasoned foods, rich gravies, sauces, cheese, pastry, candy, cakes, strong tea or coffee, very hot liquids. Fresh fruits and green vegetables are beneficial, correct the underlying constipation, dyspepsia or menstrual trouble, avoid all stimulants, wash the face in hot water every night and then apply a sulphur ointment or lotion. Local treatment consists in rapid puncture of the skin of nose with a sharp aseptic needle, and electrolysis to obliterate the blood vessels if they are visible.

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Editorial.

PROFESSOR KOCH ON BOVINE AND HUMAN TUBERCULOSIS.

The "Medical Press and Circular" of the 31st of July says :
"The announcement of an address on a subject so peculiarly
his own by the justly celebrated German bacteriologist was
an important item on the programme of the Congress on
Tuberculosis, and it did not fail to attract a large and appre-
ciative audience. The address itself, though characterized
by the persuasive decision of an investigator who is dealing
with facts within his own knowledge, came upon the audience
like 'a bolt from the blue.' Hitherto the problem of pre-
venting the spread of pulmonary tuberculosis has been based
in very great measure upon the assumption that human
beings are infected to an unknown but presumably consider-
able extent by the ingestion of contaminated articles of food,
notably the milk and flesh of diseased animals. In other
words, it has all along been assumed that tuberculosis in
man and animals is one and the same disease, and as the
process of restricting the sale of infected food presents vastly
less practical difficulty than that of preventing its spread
from man to man, a huge superstructure of preventive
measures has been erected on this basis. Judge then of the

surprise which was felt when Professor Koch calmly asserted that bovine tuberculosis is distinct from human tuberculosis, that the disease cannot be transmitted from man to animals, nor, inferentially, from animals to man; in fact, he regards infection by the milk and meat of tuberculous cattle and the butter made of their milk as a negligible quantity. It is impossible not to experience a shock at this bold attack on a series of conclusions which we fondly thought had been definitely established, thanks to the costly researches of two Royal Commissions fortified by independent observations from all parts of the world. The non-transmissibility of human tuberculosis to animals Professor Koch claims to have clearly demonstrated, but he is less emphatic with regard to the possibility of the transmission of bovine tuberculosis to man, simply because direct experiment could not be resorted to. It is obvious that conclusions of this far-reaching importance cannot be accepted without the closest scrutiny. The prevalence of intestinal tuberculosis among infants, presumably of alimentary origin, certainly suggests possible infection by contaminated milk, but in regard to this question Mr. Koch's statistics are strikingly at variance with our own. Before discrediting the conclusions embodied in the Report of the Royal Commission, it behooves us to await further independent inquiry. It is hardly necessary to point out that, even if the non-transmissibility of human tuberculosis to animals had been placed beyond the reach of criticism, it by no means follows that the converse is true, viz., that the tuberculosis of animals is not transmissible to human beings. It would seem that the tuberculosis is a more virulent disease in animals than in man, and it is conceivable that in passing through human beings it undergoes attenuation to such an extent indeed as to render its retransmission to cattle difficult though not impossible. The question, so far as it relates to the amenability of human beings to infection by the germs of animal tuberculosis, will have to be worked out in the light of clinical observation, a process which presents considerable diffi-

culty and no small degree of uncertainty. Professor Koch deserves credit for having had the courage to proclaim such heterodox views, and whatever conclusion we may ultimately come to with regard to their accuracy he will have rendered the immense service of having called attention to the vastly greater importance as a factor in the dissemination of tuberculosis of man to man infection. In our anxiety to stamp out alimentary tuberculosis it may be that we were on the point of going off on a false scent, false in the sense of attaching thereto an importance in excess of its merits. This Congress will be memorable in the history of the movement in that the rudder has been shifted and we have been invited to rectify an error of direction."

RESUSCITATION IN CHLOROFORM NARCOSIS.

The *Medical Press and Circular* of Aug. 7, 1901, says: Any amateur anæsthetist who has been suddenly called upon to "do something" in an alarming case of chloroform narcosis must wonder how it was that he could think of so few measures when so many have been suggested. Some of them, quoting from a recent article by Dr. A. Wilson in the *New York Medical Chronicle*, might not occur to the average practitioner. We note, for instance, the application of Corrigan's button to the epigastrium, dilatation of the sphincter ani, or the application of a hot sponge to the perinæum. Should none of these occur to the person in charge of the case he may stimulate the heart by intermittent pressure, rapid percussion, faradisation or acupuncture. Failing the presence of mind to carry out all or any of these restorative procedures, the belated physician may advantageously administer, subcutaneously or by inhalation, always supposing that the patient will breathe for the purpose, drugs which have the power of stimulating the depressed nerve centres—ammonia, nicotin, strychnine, extract of suprarenal capsules, "and the like." It is hardly conceivable that he should be unprovided with these every-day drugs, or that he should

forget or omit to make use of them. Seriously, however, of all the measures suggested for the resuscitation of the apparently narcotised, the only ones likely to prove of instant avail are the head-low position, artificial respiration aided by rhythmical traction on the tongue, and percussion over the cardiac area.

Surgeon-General Jameson, C. B., late the head of the Army Medical Department, has retired. His friends entertained him to a complimentary banquet on the 24th of July at the Hotel Cecil. The number present was one hundred and fifty. The chairman, in proposing the toast of "our guest," reviewed this distinguished officer's career from the days when he took part in repelling the Fenian raiders in Canada to his appointment to the post of Director General in 1896, and from which he had just retired. Sir William McCormac in proposing the toast of "The public Medical Services," expressed regret at the fact that there was not at present a single candidate applying for admission. That certainly is not a very satisfactory condition of things.

OBITUARY.

Dr. E. A. Graveley, of Cornwall, Ont., died on the 17th of June. He graduated from Bishop's College in 1877, at which College he passed his four medical years. He was for a long time physician to the goal. He served as Surgeon with the field force during the North West Rebellion of 1885. He was of a quiet, unobtrusive nature, but he made many friends and kept them.

Book Reviews.

A Treatise on Orthopædic Surgery.—By Royal Whitman, M.D., Instructor in Orthopædic Surgery and Chief of the Orthopædic Department of the Vanderbilt Clinic in the College of Physicians and Surgeons of Columbia University; Adjunct Professor of Orthopædic Surgery in the New York

Polyclinic; Assistant and Chief of the Clinic at the Hospital for Ruptured and Crippled; Orthopædic Surgeon to the Hospital of St John's Guild. Member of the Royal College of Surgeons of England; Member and sometime President of the American Orthopædic Association; Corresponding Member of the British Orthopædic Society; Member of the New York Surgical Society, etc. Illustrated with four hundred and forty-seven engravings. Price \$5.50. Lea Brothers & Co., Philadelphia and New York, Publishers.

This work on Orthopædics is the latest, most complete and up-to-date book on the subject which we have seen. The style of writing is simple, direct and concise.

It does not attempt to go into the *Ætiology* or *Pathology* to any extent, but is principally devoted to treatment in which regard it is unexcelled.

The articles on Congenital Dislocations of the Hip, Coxa Vara and Weak Feet are exceptionally complete, the author himself being a recognized authority. It is a book which we would recommend to anyone who takes a special interest in this line of work.

F. W. G.

A Practical Treatise on Diseases of the Skin.—By Jas. N. Hyde, M. D., Sixth Edition.—Lea Bros. & Co., Philadelphia, 1901.

We are glad to note the publishing of this new edition of so worthy a work, and trust it will meet with the appreciation and success the other earlier editions have had; this work has been thoroughly revised so as to bring this branch of medical science up to date.

The information to be found in same is sound and reliable, the text is good, while the plates and woodcuts are clear and interesting.

The knowledge to be gained by a careful perusal of this work will cause it to be placed as a valuable book of reference to the specialist as well as the general practitioner.

J. M. S.

Eczema and its Management.—By L. Duncan Buckley, M. D. Third Edition., G. P. Putnam & Co., New York, 1901.

This work by the above author is very full on the subject, and shows careful thought while writing same; many points of interest are to be found in the case of those troubled with this disease.

We regard the little work worthy of a place in the Medical library, being a help to the general practitioner interested in the care of those suffering from eczema.

J. M. S.

PUBLISHERS DEPARTMENT.

SANMETTO IN URETHRAL STRICTURE.

Dr. Jos. Swindell, of West Burlington, Iowa, writing, says : "I have been using Sanmetto for several years. I find nothing that suits me as well in genito-urinary diseases. I am using it right along in conjunction with treatment of urethral stricture. It soothes, checks and prevents smarting and inflammation that is so common after passage of bougie. Its ease of administration and formula should recommend it to the profession."

SANMETTO IN ENURESIS.

I used Sanmetto in a case of a young miss, thirteen years of age, who was becoming a regular "wet the bed." I had tried all the usual remedies, but failed to make a cure, so I tried Sanmetto, and the result was a perfect cure, as she has not been troubled since the first treatment with Sanmetto, and I inquired to-day, and was informed that she had attended school, travelled two hundred and fifty miles, losing two nights sleep, but not once has the trouble returned ; therefore, I call it a cure in every sense of the word, and another triumph for Sanmetto. I can say that in over forty-six years' practice I have never found a medicine that is as near a specific for the purposes intended as Sanmetto.

WM. H. ANDERSON, M.D.

Soda Springs, Idaho.

SANMETTO IN SPASMS OF BLADDER NECK.

Sanmetto is not new to me, as I have used it two years. I will report a case that came under my treatment on the fourth day of February. A lady about forty years of age had spasms of the neck of the bladder. She was in constant pain. She could neither sleep nor sit still. She was compelled to urinate as often as every half hour. I commenced giving her Sanmetto, a teaspoonful every two hours for the first twelve hours. The next twenty-four hours I gave her a teaspoonful every three hours, and the next twenty-four hours every four hours, unless sleeping. Discharged the woman the fifth day as well, and she has been well ever since. A prominent physician of our city had been treating this patient, but she received no benefit from his treatment whatever.

WM. S. McLEAN, M.D.

Saginaw, E.S., Mich.

LITERARY NOTES.

The Living Age has done its readers a service by translating and printing in its issues for August 3 and 10 M. Ferdinand Brunetière's clever and not unsympathetic observations on "The American Spirit," which were first printed in the *Revue des Deux Mondes*.

Matilde Serao's story of "Sister Giovanna of the Cross," now running as a serial in *The Living Age*, grows in pathos and interest with each instalment. It is in a new vein for Madame Serao.

The caustic article on "The Shadow on the Stage," which *The Living Age* for August 3 reprints from *Blackwood's*, is written primarily of course of the English stage, but the account which it gives of the displacement, first of the poet by the actor, and then of the actor by the stage carpenter, will be recognized as true of the American as of the English stage.

Blackwood's slashing article on "The Cult of the Millionaire," which *The Living Age* reprints in its issue for August 31, has a distinct bearing upon the American type.

Mrs. Archibald Little's "Peking Revisited," in *The Living Age* for September 7, is a graphic personal sketch of the Chinese capital as it appears now on the eve of the evacuation by the allies.

An old yet ever new subject, the relation between "Mothers and Daughters," is freshly and sensibly treated by Mrs. Florence Bell in the leading article in *The Living Age* for September 7. Mrs. Bell's views are modern, but not extreme.

Ernest Newman's article on "The Essential Tschaikowsky," reprinted from *The Contemporary Review* in *The Living Age* for August 3, is an important contribution to the literature of musical criticism, and is exquisitely written.

People who hold that there is an occult connection between the shape of the nose and mental characteristics will find much to confirm their opinion in the study of "Minds and Noses," which *The Living Age* for August 10 reprints from *Blackwood's*.

Catherine I. Dodd's article on "The Ideals of an American School Girl," in *The Living Age* for August 10, describes and tabulates the results of some recent inquiries concerning the ideals cherished by American school girls, in a manner which is diverting and illuminative.

In M. de Vogue's article, "An English View of France," which *The Living Age* translates for its issue of September 7, we have Mr. Bodley's opinions and criticisms of French life and letters brightly, yet not unsympathetically treated by one of the cleverest of contemporary French writers.

The leading article in *The Living Age* for August 17 will be Herbert Paul's "Personal Impression" of the late Bishop of London—a charming tribute to one of the most beloved of ecclesiastics. According to Mr. Paul, Bishop Creighton's death may fairly be attributed, as was that of Bishop Brooks, to overwork in attention to the details of the duties of his office.

Matilde Serao's story, "Sister Giovanna of the Cross," which is concluded in *The Living Age* for September 7, is one of the most touching and exquisite stories in recent magazine literature. Its publication is specially timely, as the Benedictine nuns and other religious orders in France are about closing their doors in anticipation of the taking effect of the new Associations' law.

People who would like to read the entire text of Professor Robert Koch's paper on the suppression of tuberculosis, which occasioned such a stir at the British Congress, will find it in *The Living Age* for August 31. The paper has been so much discussed and the positions taken in it are the subject of so much controversy that the intelligent reader will be glad of the opportunity to learn for himself precisely what Professor Koch's claims are.

CANADA MEDICAL RECORD

SEPTEMBER, 1901.

Original Communications.

CANADIAN MEDICAL ASSOCIATION.

The 34th Annual Meeting of the Canadian Medical Association opened at Winnipeg, Manitoba, on the morning of the 28th of August and continued for the two following days. There were in attendance over 175 members from all parts of the Dominion, the second largest gathering in the history of the Association; and the meeting itself has been pronounced the most successful of any yet held under the auspices of this Association. There were several visiting doctors from the United States.

Dr. H. H. Chown, of Winnipeg, the President, occupied the chair, while Dr. F. N. G. Starr, of Toronto, discharged the duties of Secretary.

In the absence of Chief Justice Killam, Dr. J. H. O'Donnell, one of the oldest practitioners in the West, delivered the address of welcome. He referred to the conditions present in 1869, when Winnipeg was an outpost of civilization, and gave interesting references to Drs. Cowan, Curtis, J. Bird, Beddom and Bund, who were already in the West when Dr. O'Donnell moved there in 1869. His address was very much appreciated by the members of the Association.

Dr. R. W. Powell, of Ottawa, the Past President of the Association, then introduced Dr. H. H. Chown, the President-Elect to the Association.

Dr. Chown, on rising to reply, was received with hearty cheers, testifying to the high esteem in which he is held by his fellow practitioners throughout the Dominion. He briefly thanked the Association for the honour they had conferred upon him at the meeting in Ottawa one year ago.

Dr. Starr, the Secretary, presented his Annual Report. It referred to the meeting at Ottawa last year, to the attendance of 153 members, which was an increase over former meetings in this city, to Dominion Registraton and to the formation of a Physicians' Medical Protective Association.

Dr. Edebohls, of New York, and Dr. Sutton, of Pittsburg, were welcomed to the Convention and requested to participate in the discussions.

THE QUESTION OF MEDICAL DEFENCE.

This was introduced by Dr. Russell Thomas, of Lennoxville, Que., who had been delegated by the St. Francis District Medical Association to present this subject to the Canadian Medical Association. He made a strong plea for the formation of a Medical Defence Union, and thought that all were agreed of the necessity for such. He supported his contentions by citing two or three cases already well known to medical practitioners in Canada, and, after showing that such defence unions were a success in England, he concluded by outlining the plan of medical defence already in vogue and supported by the St. Francis District Medical Association, which he was authorized and prepared to hand over entire to the Canadian Medical Association. The discussion of this important matter was deferred until later on in the session.

ADDRESS IN MEDICINE—"THE QUESTION OF MEDICAL EDUCATION."

Dr. J. R. Jones, of Winnipeg, delivered this address. In opening his remarks he referred to the unsolved problems of Medical education, the importance of which were especially manifest in view of the establishment of a Dominion Medical Board. Uniform or equivalent curricula, he thought, would

greatly facilitate paving the way for the accomplishment of this object. He thought that the great aim of the Canadian Medical Association should be to create a Dominion Medical Board upon such a sound and enduring basis that the qualifications could be registered in every province of the Dominion. They should not only be Canadian, but Imperial, capable of registration in Great and Greater Britain. There should be no special education for the profession of medicine, and the defect in the preliminary education of medical students should be corrected. The standard is not high enough. Many students come into the medical college, their minds totally unprepared, undisciplined, not competent to engage in the different studies of a profession to advantage. Dr. Jones would not eliminate Latin, but would go a step farther and advocate a more general knowledge of Greek, as Greek was *par excellence* the language of science. He quoted from two eminent authorities, who favour the retaining of classical education as training for professional studies—Dr. Alexander Hill, a member of our own profession, who is Master of Downing College, Cambridge, and Prof. Jebb of Berlin. He referred to medical matriculation examinations, and deplored the lamentable defects in the English paper, the most neglected subject in our primary schools. From an experience of many years as an examiner at the University of Manitoba, Dr. Jones has concluded that the teaching of English takes a very subordinate position in our schools. The defect was a universal one; and it was obvious, if English should become a prominent subject of medical matriculation examinations, every student ought to be able to express his thoughts coherently and intelligently. The didactic lecture came in for adverse criticism, and defects and useless waste of time, which could be more profitably employed, were pointed out. Persistent work in the dissecting room, under the guidance of an experienced demonstrator, who will describe, discuss and constantly orally examine the student is a rational and effective method of teaching Anatomy. Medical Jurisprudence and Sanitary Science were not properly taught.

Dr. Jones supported the "case" method of teaching; and from personal experience he favours the English system of clinical clerkships and dresserships as the most feasible, practicable and thorough for the development of medical teachings. He referred to the question of Dominion Registration, and pointed out two serious objections to Dr. Roddick's Bill: First, the great number of the representatives on the Council, entailing expenses beyond at least our immediate resources; and second, the fact that one of the contracting parties to Dominion Registration may secede, and the elaborate fabric, the work of many years, tumble to the ground. The able paper of Dr. Jones was received with much gratification by the Association.

Dr. R. B. Nevitt, Dean of the Woman's Medical College, Toronto, in moving a vote of thanks to Dr. Jones for his able paper, stated that he had placed his finger on the weak point of Medical Education. Dr. S. J. Tunstall, of Vancouver, seconded the motion for the vote of thanks and also congratulated Dr. Jones for the excellent manner in which he presented his subject.

DOMINION REGISTRATION.

Dr. T. G. Roddick, of Montreal, who has so long and so ably advocated this much-to-be-desired measure, delivered a stirring address on the subject, ably reviewing the subject of inter-provincial registration from the time of its inception to the introduction of his Bill at the last session of the House of Commons. The special committee appointed on this subject had not yet reported, so the discussion was postponed until the committee had a chance to meet and report later on in the session. Dr. Roddick now seems to hold to the opinion that the suggestion of Dr. Britton, of Toronto, that representation by population, for Ontario at least, would be advisable.

INFECTIOUS PNEUMONIA.

Dr. W. S. Muir, Truro, Nova Scotia, read this paper. He reported four cases, all of which had occurred between

the 1st and 13th of April of this year, in the same house and in the same family. The first occurred in a child of ten years, the disease terminating by crisis on the 6th day, the child making a good recovery. A sister aged fourteen contracted the disease, terminating by crisis on the 9th day, but followed two days after by left-sided pleuro-pneumonia. This proved fatal. The third occurred in a sister of fifteen years of age beginning with a pain on the left side, and terminated on the 10th day by crisis and recovery. Number four developed pneumonia, but recovery was quick, the patient being about in two weeks. There was no influenza in the town at the time. Dr. Muir spoke of the organism of pneumonia, its cultivation and its detection.

First Day—Afternoon Session.

PRESIDENT'S ADDRESS.

As this was the first time that the Canadian Medical Association had met in Manitoba, Dr. Chown referred briefly to the future of that important province. Although less than 10 per cent. of the arable land was under cultivation, Manitoba's farmers would this year have a crop estimated at 85,000,000 bushels of grain. He then referred to the work performed in Winnipeg for the purpose of making that city a healthy one, and, in spite of the level nature of the land an excellent system of sewers had been introduced through all the streets, and efficient arrangements had been made for regular flushing of the sewers by means of tilting basins at the upper end of each main sewer. As Winnipeg has two rivers at her doors, the problem of removing sewage was easily and safely solved. Dr. Chown then referred to the water supply, and said that the people of Winnipeg enjoyed as pure water as could be found in the world. An examination of the city water would show that there were in it only nine to thirty colonies of bacteria. The water is taken from an artesian well seventeen feet in diameter and forty-eight feet deep, and, although they have been pumping for months a supply of from two million to three million gallons per day,

there is not the slightest evidence of any diminution of the amount flowing in. This well is supposed to tap an underground passage which runs from Lake Manitoba, and, as this lake is 130 miles long, the supply is inexhaustible. The underlying rock formation in that section of Manitoba is magnesia limestone, and, consequently, the water contains a large amount of the carbonate of lime and of magnesia, and is too hard for satisfactory use in boilers and hot-water appliances. This is overcome by using Clark's method of softening by precipitation of these carbonates through the action of limewater, and the softening plant is unique on this side of the Atlantic. Dr. Chown then referred to the question of tuberculosis, and thought that Koch's tentative denial of the oneness of tuberculosis of man and tuberculosis of cattle still needs the proof of non-inoculability from cattle to man. He instanced cases of young farmers free from tuberculous taint, living in newly-built houses, harbouring no bacilli and separated by long distances from their neighbours, in whom tuberculosis constantly makes its appearance; and we have here an experiment on a wide scale, and, if you can eliminate heredity, house infection and contagion from other cases, to what cause can you ascribe the origin of these outbreaks? Medical education, the plan of Dominion Registration, as introduced by Dr. Roddick, malarial fever, proprietary drugs, the progress in surgery and the future of bacteriology and hæmatology were subjects ably dealt with; and in concluding Dr. Chown felt that a duty rested upon the medical profession to get at the true cause of all forms of disease, and rescue the public from both the honest fanatic and the ignorant pretender by doing not only what these claim, but doing more and doing it better.

Sir James Grant, of Ottawa, moved a vote of thanks to the President, and characterized the address as extremely interesting and instructive. Dr. J. L. Bray, of Chatham, seconded the motion.

EPIDEMIC CEREBRO-SPINAL MENINGITIS.

Dr. James McKenty, Gretna, Manitoba, presented this paper, which gave an account of an epidemic occurring in North Dakota during the winter and spring of 1893. It occurred within an area extending fifty miles from east to west and twenty miles from north to south, and was comparatively definitely limited. About seventy persons were seriously ill, and almost as many others suffered from mild manifestations of the disease. Of the seventy cases twenty-five ended fatally—a mortality of about 35 per cent. In the practice of Dr. McKenty there occurred some thirty cases, a brief record of twenty-two of these being kept. The average age was seventeen years; the youngest, fifteen months; the oldest, thirty-eight years. The duration of the disease extended from twelve hours to fifteen weeks. No *post mortem* was made in any case. Dr. McKenty then described in detail the clinical aspect of several cases.

SPLENIC ANÆMIA, WITH CASE.

Dr. A. J. Macdonnell, Winnipeg, contributed this paper with the history of the case. This was an exceedingly rare disease. In 1898 the number of cases recorded did not exceed thirty, but since that time there has been fifty additional cases reported. R. N., aged 27 years; environment good; has never had malaria; habits and mode of life good; positively never had syphilis. The present illness began in August, 1899. Felt heavy on the right side with a feeling of fullness and weight. In January, 1900, gave up work on account of muscular weakness. There was no vomiting. The patient consulted Dr. Macdonnell in March, 1900, walking into his office with considerable difficulty. There was no enlargement of lymphatic glands. Enlargement of the stomach could never be percussed or palpated. Liver dulness was practically normal. There was no jaundice or pain in the liver region. The patient succumbed to the disease, but no post-mortem was held. Another case occurring in a patient aged seventeen was reported. Dr.

Bell made a blood-count in this case, which at different times ranged 3,540,000, then 3,600,000, then 3,400,000, with 7,602 white-blood cells. In this case all the other organs were normal; and there seemed to be no pre-disposing cause in this case. Dr. Macdonnell stated that only ten autopsies had been made on people dying from the disease. He referred to the conditions found post-mortem in these cases. The treatment was stated to be rest, diet and vigorous doses of arsenic. The mortality is set down at 20 p.c. As far as operation is concerned physicians will not be satisfied until it is clear that the patient recovers from the operation as well as from the disease. If we are sure of our diagnosis, then surgical intervention is deemed advisable.

PHYSICAL DEVELOPMENT.

Dr. J. N. Hutchison, of Winnipeg, read a carefully prepared paper on Physical Development. The paper did not deal with anything new, but called attention to and emphasized certain facts of considerable importance. He considered that children were sent to school at too early an age, and, as a result, there was danger of brain over-work. He insisted upon the necessity of having healthy parents and deplored the system of education which developed the mind at the expense of the body. He was an advocate of periodical lectures by duly qualified physicians to separate classes of boys and girls on the subject of sex, but the primary responsibility in this matter he placed upon the parents. There would be real progress in the prevention of tuberculosis when people, the subject of the disease, recognized that they should not marry. The paper which was listened to with close attention closed with a reference to the problems of those unfortunates who are neither mentally nor physically qualified for the duties of life.

REPORT OF CASES TREATED WITH SUPER-HEATED DRY AIR.

Dr. W. H. Pepler, of Toronto, introduced this subject in a paper which cited his experience and observations in the treatment of certain cases by this plan or process. He briefly

described the apparatus and the method of treatment. It only takes twenty minutes to reach a heat of 300 degrees F. The average duration of the application of the heat is forty-five minutes. The physiological and therapeutical effects noticed were referred to as dilatation of blood-vessels, etc. He administers the treatment one hour after meal time with due regard that there shall be as little as possible excitement and exertion. He has not seen any ill-effects from the treatment. *He first gave notes of the case of a patient, a man aged thirty-five years, who had suffered for some time from varicose ulcer of the right leg, with considerable pain. This patient had a treatment of 35 minutes' duration, and was able to walk home with very little discomfort. After three times, in ten days, the ulcer was very much reduced in size. The second case was a patient twenty-two years of age who had been troubled with rheumatism for two years past. A temperature of 320 degrees was employed with good satisfaction. Several other cases of rheumatism and eczema were reported. The treatment in each case proved highly satisfactory, patients never complaining of any discomforts and all expressing satisfaction with the treatment. Dr. Pepler subjects a considerable portion of the patient's body from a temperature of 280 to 320 degrees F. The results are often not apparent for some time after treatment.

Dr. McAdam, of Battleford, asked Dr. Pepler if he had ever tried the treatment with high temperature, where he had any doubts of the condition of the heart.

Dr. MacDonald, of Brandon, referred to a case which had come under his observation in which there was heart trouble. Perspiration occurred freely, but with no effect in a depressing way upon the circulation. Treatment in this case was continued for two weeks, but he had never determined that there had been any effect upon the heart, although there was a small heart-lesion at the time.

Dr. Pepler in reply: He could not speak personally as to any deleterious results from weak heart. Of course there were many cases reported where heart trouble was present.

He personally had never noticed any heart or head symptoms in his cases. He thought with care there would be no bad results.

ORTHOPEDIC TREATMENT OF DEFORMITIES AND DISABILITIES RESULTING FROM DISEASES OF THE
NERVOUS SYSTEM.

With special reference to tendon transposition, by Dr. B. E. McKenzie, of Toronto, who spoke of disabilities and deformities resulting from paralysis, some of which were commonly regarded as hopeless; but the conditions of a great majority of them were remediable and should receive a considerable amount of attention. He was at some pains to explain the respective motion of joints, particularly the ankle joint and knee joint, especially calling attention to the normal conditions of equilibrium, and then showed how the muscles of some of the groups at times became paralyzed and the balance and equilibrium thereby destroyed. Mechanical treatment was often necessary and often efficacious as well; massage and electricity had their respective places, but he made particular reference to the method of treatment that had been in vogue for twenty years and had been introduced on this continent by Dr. Parish, of Philadelphia. He went carefully into an explanation as to how muscles can be transferred from their usual point of action and then he gave an account of several cases in which he had successfully accomplished this. In his opinion amputation of a limb, because of apparent disability, should seldom or never be resorted to.

In answer to Dr. McAdam, Dr. McKenzie disapproved of jackets in treatment of curvature of the spine.

Dr. Clarence Starr, Toronto, stated that the subject was of great interest to him, as he was interested pretty largely upon the same lines of surgery. Mr. McKenzie had indicated a large number of cases of paralysis which can be wonderfully helped by operative procedures.

Dr. Starr thought that Dr. Bowlby, of Boston, deserved

a great deal of credit for the work he has performed in this connection.

Dr. H. B. Small, of Ottawa, referred to a case Dr. McKenzie had operated on. In this case, previous to operation, the boy had great difficulty in arising from the sitting posture, and when walking he had to rest every few yards. After the operation he was very much improved, and when Dr. Small last saw him, about a week ago, he could walk very easily, and never had to support himself. The improvement during the last four or five weeks was especially very marked.

Second Day—Morning Session.

MILD SMALL-POX.

Dr. G. A. Kennedy, McLeod, Alberta, presented this paper. It dealt with the recent outbreak of the disease in the North-West Territory, an outbreak which was widespread and which had existed for some time before its true nature was recognized. Dr. Patterson, quarantine officer for the Dominion Government, was satisfied that there had been 1,500 cases. A noteworthy fact was that the greatest number of cases occurred among the French half-breeds, who had never been vaccinated, and further, Indians on reserves had not suffered to any great extent, as annual vaccination is the rule. Not one case was seen or heard of among Galicians, Doukhobors or Roumanians, which was due to the fact that compulsory vaccination was the rule in youth, and then they had been re-vaccinated on their recent passage across the Atlantic and at Halifax. Fifty per cent. of all cases were extremely mild in character, forty per cent. were cases of typical varioloid; ten per cent. were severe, almost confluent. The mortality was slight, only thirteen deaths occurring, and the disease prevailed fully as much amongst adults as amongst children.

Dr. Muir, Truro, Nova Scotia, discussed the merits of the different vaccines on the market, and the paper was further discussed by Dr. MacDonald, of Brandon; Dr. Inglis,

of Winnipeg; Dr. D. H. Wilson, of Vancouver; and D. Montizambert, of Ottawa. The latter considered it would be unfortunate if the impression went abroad that any doubt existed in the minds of the members of the Canadian Medical Association as to the true nature of the disease which had been epidemic for some years. He considered the facts presented in Dr. Kennedy's paper, relating to Doukhobors and Galicians, were perhaps the most valuable portion of it. At the close of this discussion the following resolution was moved by Dr. R. S. Thornton, seconded by Dr. J. L. Bray and unanimously adopted:—"Resolved, that in view of the general prevalence of small-pox throughout the continent, this Association desires to urge upon the profession and the public generally the necessity of vaccination and re-vaccination."

CHRONIC ULCERATION OF THE STOMACH, SIMULATING
CANCEROUS DISEASE.

Relation of a case of Gastro-Enterostomy with Murphy Button, Recovery, By Dr. J. F. W. Ross, Toronto. This occurred in a woman twenty years of age, the condition of whose stomach had been bad for three years. She was a nurse in the training school of a hospital, and her gastric conditions grew gradually worse and worse. Dr. Ross was asked to see the patient by Dr. E. B. O'Reilly, Hamilton, in December, 1899. He found her emaciated, with the opium habit already formed. In January, 1900, he again saw her with Dr. Griffin, of Hamilton. At this time rectal alimentation was being persevered in with considerable benefit. In March, 1900, she was discharged from the hospital and remained well for two weeks. As soon as food passed into the stomach great rigidity of the right rectus muscle was noted. When the patient came under Dr. Ross's attention she weighed about 75 pounds. As malignant disease of the stomach is rare at this age of life, it was difficult to diagnose the tumour as such, and the symptoms pointed to the pyloric end of the stomach; it was not possible to say whether cancer-

ous or not. The symptoms pointed to the presence of ulcer, but the thickening easily made out lead to the belief that malignant disease had been grafted on to the ulceration. Some dilatation also could be made out, but the rhythmic muscle waves so characteristic of pyloric obstruction could not be found, but a large growth was found at the pyloric end. The case was looked upon as hopeless, and decision was arrived at, not to remove the growth, but to give temporary relief by gastro-enterostomy. This was done and the patient made an uninterrupted convalescence. Eleven months after the operation the patient weighed 140 pounds and looked the picture of health. On examination of the abdomen no mass could be felt, and the patient was not suffering from any gastric symptoms at all. Dr. Ross then went into the literature on the subject, quoting Fagge, Sydney Martin, Moynihan and Mayo Robson.

Dr. Laphorn Smith, Montreal, began the discussion, stating that the case was especially interesting to him, but rather from the general practitioner's point of view. He believes that no case of cancer of the stomach every begins as cancer of the stomach. First, there is some sort of irritation of the mucous membrane. This irritation finally becomes a chronic ulcer, and upon this the germ of cancer is engrafted, or whatever it is which is the essential constituent of the cancerous process.

Dr. Martin, Montreal, discussed the importance of the examination of the stomach contents in these cases.

Dr. Bruce, Toronto, stated that he had an experience with a case a year ago which corresponded closely to the one Dr. Ross has reported. His patient was thirty-eight years old.

Dr. Gilbert Gordon, of Toronto, thought that we should look at these cases from the standpoint of the physician as well as from the standpoint of the surgeon.

Dr. Howitt, Guelph, stated that the second case of ulceration of the stomach upon which he operated was one of acute perforation.

Dr. Ross thanked them for the reception they had given his paper.

SOME FORMS OF HYPERACIDITY AND THEIR TREATMENT.

Dr. C. F. Martin, of Montreal, presented notes of some interest, judging from the results of systematic examination of the gastric contents. The unfortunate general employment of the term "dyspepsia" is responsible for the disregard of this condition. In the case of organic disease producing excessive secretion, the diagnosis is often difficult. He gave the history of two cases in illustration, the second being an individual forty-five years of age, who gave the unusual history of having been ill for six months. There was no obstruction of the pylorus, but simple dilatation of the stomach. He also referred to the medical treatment following gastro-enterostomy.

Dr. MacDonnell, of Winnipeg, discussed this paper.

MEDICAL DEFENCE.

The report of the committee on Medical Defence was here presented by W. S. Muir, of Truro, N. S. It reported favourably on the formation of a Medical Union, and the organization thereof was immediately perfected. It will be known as the Physicians' Medical Protective Association, will be incorporated, and will have for its object the protection of the character and interests of medical practitioners in Canada. It will further promote honourable practice, will aid in suppressing or prosecuting unauthorized practitioners and will seek to advise and defend or assist in defending members in cases where proceedings involving questions of professional principle or otherwise are brought against them and other like matters. Dr. R. W. Powell, of Ottawa, was elected President; Dr. McKinnon, of Ottawa, Secretary, and Dr. James Grant, jun., of Ottawa, Treasurer.

REPORT OF COMMITTEE ON DOMINION REGISTRATION.

It is proposed to secure an Amendment to the B. N. A. Act, or to take advantage of section 91 of that Act, and under it obtain legislation from the Dominion Parliament, by which the profession in Canada might form a Dominion

Council and which could be supplemented by legislation by the various provinces recognizing any certificate of standing issued by the Dominion Council as entitling a holder to practice in such provinces. Dr. Muir approved of Dominion Registration, and spoke for the Province of Nova Scotia. Dr. Jones voiced the sentiments of the profession for Manitoba. Drs. A. A. Macdonald and J. L. Bray endorsed the scheme for Ontario. Dr. Russell Thomas spoke for Quebec. Dr. Christie said that New Brunswick was in favour of Dominion Registration. Dr. Lafferty said the North West Territories were favourable.

Second Day—Evening Session.

CANCER OF THE UTERUS, WITH LANTERN DEMONSTRATIONS.

This was a very interesting and profitable demonstration conducted by Dr. Thos. S. Cullen. In introducing Dr. Cullen, Dr. Chown spoke of him as a young Canadian who had gone wrong in having removed to the United States and having never returned. Dr. Chown considered that the experimental work pursued by Dr. Cullen, if done in Canada, would meet with as signal success as that which attended his labours in the United States. For over an hour Dr. Cullen was engaged in showing a large number of excellent lime-light views, the results of microscopic examinations of tissues, each view being lucidly explained by the demonstrator. At the close of his excellent demonstration Dr. Cullen was accorded a hearty and unanimous vote of thanks, moved by Dr. Eccles, of London, and seconded by Dr. Gray, of Winnipeg, and carried amid great applause.

SKIN DISEASES WITH LANTERN DEMONSTRATIONS.

This was another valuable demonstration and was conducted by Dr. Francis J. Shepherd, of Montreal. He first exhibited cases of blastomycetic dermatitis, and further spoke of a few cases which he had seen of this disease. Views were also given of cases after treatment with iodide of potash. Some interesting views were those caused by drug eruptions,

of which he showed two or three due to salicylate of soda. In one of these Dr. Shepherd said that the lesions first came out with large welts like urticaria. This is rather a rare form of drug eruption. It appeared after two doses of ten grains each of the drug. One case almost died of acute laryngitis from the eruption in the throat. Amongst other views shown were papular purpurs, which is generally associated with rheumatic attacks, psoriasis of the nails, X-ray burns, as the result of one application, and most interesting were cases of small-pox, one showing postules upon the palm of the hand, particularly interesting, as in adults you never see chicken-pox upon the palm of the hand, but you invariably do in small-pox. Views of feigned eruptions were also shown. This demonstration proved so interesting to the members that Dr. Shepherd was frequently called upon to give more or go on.

THE VARIETIES AND DISTRIBUTION OF BACILLI DIPHTHERIÆ AND THEIR CLINICAL SIGNIFICANCE.

Dr. F. F. Westbrook, of the University of Minnesota, presented a paper on this subject, primarily from the laboratory point of view. He exhibited a carefully prepared chart, showing in tabulated form the results of numerous examinations in schools, and stated the conclusions which he deduced from these facts. Formerly, it was believed that the bacillus remained localized at its point of entrance, but now within recent years, however, careful observations have showed that the toxins had been distributed throughout the body and the bacillus itself found in organs far removed from the atrium. From evidences of 230 cases of diphtheria at autopsy, observers had called attention to the frequency with which the bacillus of diphtheria was found in the organs of the body. The bacillus and its toxins have been shown to be capable of producing lesions which differ greatly from each other, as in ulcerative endocarditis, meningitis, etc. In summarizing Dr. Westbrook said, where each school was reported and where great care was taken in the isolation of clinical cases with typical form, the percentage was very small.

REMOVAL OF HAIRY TUMOUR FROM THE STOMACH WEIGHING
23 OUNCES—SPECIMEN—RECOVERY. BY DR. H. A.
BRUCE, TORONTO.

The subject of the case was a woman aged 26; she had been married six years, and had two children. A lump was noticed in the abdomen two months previous to the birth of the last child. Patient had no symptoms. The lump was about five inches in width, and it could be lifted forwards. It reached to within three inches below the umbilicus. It gave the patient no special discomfort, there being absolutely no symptoms present. Dr. Bruce advised exploratory incision. This was done on July the 22nd last, at St. John's hospital, Toronto. On opening the abdomen in the middle line the spleen and kidneys were found in normal condition, but there was a large mass in the neighbourhood of the stomach. The surgeon could make out the mass lying free in the stomach, a portion extending through the pyloric end of the stomach. An incision was made into the stomach and the mass removed. After removing the mass of hair, the opening of the stomach was closed in the usual way. Hot salt solution was given every two hours and nutrient enemata every six hours. Twenty-three hours after the operation sips of hot water were given by the mouth. Forty-eight hours after operation patient was given one half an ounce of milk and lime water every hour. She left the hospital on the twentieth day. The tumour was entirely of hair exactly the same colour throughout and the same colour as the hair on her head. It was 24 inches in length, being about 2 inches in diameter at one end and gradually tapering to a point at the other. Dr. Bruce considered this case rare, but offered no solution as to how the hair got into the stomach. There were no evidences of hysteria present in the patient. There are some specimens of hairy tumours in the McGill Museum at Montreal.

Third Day—Morning Session.

A CASE OF TRANSPLANTATION OF THE URETER FOR CURE
OF URETERO-VAGINAL FISTULA. BY A. LAPHORN
SMITH, MONTREAL.

This occurred in a married woman thirty-four years of age, who came to Dr. Smith on the 1st of July. During parturition forceps were employed and the vagina lacerated, and ever since there has been a constant flowing of urine by the vagina. Operations for the relief had been performed in England without success. Dr. Smith had seen Sanger perform an operation of this character in Leipsic, when he was there three years ago, namely, to open the peritoneum running over the large vessels at the brim of the pelvis and to feel for the artery, see the vein and pick up the third tube, which was the ureter. The operation was done in the highest Trendelenburg posture. A very small incision was made in the peritoneum lining the pelvis in the line of the ureter, a silk ligature was passed around it, and then the ureter was severed a little above the ligature. The end of the ureter was split open to a distance of a third of an inch. A slit was then made obliquely into the right upper corner of the bladder and the ureter stitched into it—the mucous membrane of the ureter to the mucous membrane of the bladder with very fine chromicised catgut. This is the first time this operation has been done in Canada, and Dr. Smith stated that not a drop of urine had passed through the fistula since.

SYPHILIS AS SEEN BY THE OPHTHALMIC SURGEON.

This paper was read by Dr. F. Buller, Montreal. In commencing his paper Dr. Buller expressed the hope that it would elicit a little discussion. It often falls to the lot of the ophthalmic surgeon to discover the presence of active syphilitic virus where the disease had long since been considered cured or that the subject cherished the belief that there was no more to fear from it. The ophthalmic surgeon is scarcely,

if ever, called upon to treat the disease in the primary stage. The largest share of his work is in connection with the tertiary period, and in this class of case the disease has been apparently cured for a long period of time. Dr. Buller considers that the time at which the syphilitic lesion makes its appearance is always a very important element in the diagnosis. Discussing medication, Dr. Buller does not believe that the protiodide of mercury at least as ordinarily administered is a reliable anti-syphilitic. He appears to favour the inunction method first and then gray powder. The following took part in the discussion of this paper: Dr. Lafferty, of Calgary; Dr. Muir, of Truro; Dr. Laphorn Smith, of Montreal, and Dr. Shepherd, of Montreal, who also condemned the protiodide treatment.

THE PRESENT OUTBREAK OF SMALL-POX IN AMERICA.

This subject was presented by Dr. H. M. Bracken, Health Officer, Minnesota. He outlined the origin and traced the course of many outbreaks in various parts of the State of Minnesota. The case of a porter on the Great Northern Railway, who arrived in St. Paul in March, 1899, was mentioned as the source of the outbreak. He was supposed to have contracted the disease in Seattle, and, when told that he had small-pox, he said that if so there was plenty of the same disease where he came from. Other epidemics were spoken of in various parts of Minnesota, with a total of 9,429 cases, and the disease has still many centres in that State. It is impossible to locate positively the source of the present wide-spread epidemic farther than that it spread from the southern and south-western States into North Dakota, Minnesota, Nebraska, Montana and Texas. Dr. Bracken showed that returning soldiers from the Philippines were not responsible for its introduction. He suggested that it was probably imported into the United States by Cuban refugees before war broke out between that country and Spain.

An interesting discussion took place on this paper. Dr. Russell Thomas wanted to know where the best vaccine was

manufactured, a product that could be relied upon.

Dr. Inglis, formerly Medical Health Officer, Winnipeg, related his experience in the schools of Winnipeg, and spoke of some of the bad results obtaining through impure vaccine.

Dr. Bracken in reply: Vaccine was frequently spoilt by not being kept in proper temperatures, as it was frequently being shipped in cans which were too hot, and subsequently kept in warm offices. The Health Commissioner, of Minneapolis, kept all his vaccine in an ice-box, but, of course, not frozen, and had obtained good results. Replying to a question in regard to isolation, Dr. Bracken favoured eighteen days' quarantine.

THE NECESSITY OF A RECOGNITION AND ISOLATION OF TRACHOMATOUS PATIENTS IN CANADA.

In the absence of Dr. W. Gordon M. Byers, Montreal, Dr. C. F. Martin, of the same city, read this paper. The paper recited the history of a young girl from Glengarry County, Ontario, who came to the Clinic at the Royal Victoria hospital, Montreal, with a most intense condition of granular lids. She had been unable to open her eyes properly for months past, and her vision was reduced to the counting of fingers. The seriousness of her disease had not been recognized at home as she mixed freely with other members of the community. Another case was referred to in the County of Leeds, and in this case as well no precautions had ever been taken to prevent the spread of the disease. Dr. Byers believes that there are many unrecognized and untreated cases scattered here and there throughout the Dominion. The disease is said to be prevalent in districts of Manitoba and certain centres in the Eastern counties of Ontario, and others in Quebec. The Trachoma problem has had to be faced by one Government in Europe, and the matter has been brought to the attention of the Dominion Government, which has not yet taken any action in the matter. Dr. Montizambert stated that the question of exclusion of trachomatous immigrants had been under

consideration by the government for some time. He considered these people somewhat undesirable immigrants

A FEW NOTES ON THE TREATMENT OF TYPHOID FEVER.

Dr. J. L. Bray, of Chatham, discussed this subject under medicinal, dietetic and hygienic headings. The first he thought might be eliminated, except in cases where complications arise, and he thought a certain amount of medicinal treatment useful during the initial stages. He was in the habit of employing calomel. Tympanites could be avoided to a great extent by a proper diet. In feeding, now, he gives very little milk, but that little always peptonized. He believes in making the patient drink two or three quarts of pure water in the twenty-four hours. Albumen water with sugar may be given from the first; after the first two weeks he gives liquid peptonoids, or some of the numerous preparations of beef, jellies, mutton broth or a soft boiled egg.

As regards the hygienic treatment, the bedding and the night clothes should be changed daily. The room should be kept thoroughly ventilated, admitting plenty of fresh air and sunshine. The patient should be sponged frequently with tepid water, and you get just as good results from tepid water as from sponging with very cold water or the cold bath, and it is not so distasteful to most patients. In hospital practice Dr. Bray used the electric fan after using the tepid water. He has found this plan very satisfactory, especially in young and sensitive children.

Dr. Russell Thomas discussed the paper, and said that he had found the ice-cap beneficial, that it did not disturb the patient, and had a decided effect in reducing the temperature.

Third Day.—Afternoon Session.

THE ADDRESS IN SURGERY.

This was delivered by Dr. O. M. Jones, Victoria, B.C., and it proved a very able and masterful effort. He opened his address with a reference to surgical diseases in Western

Canada as compared with those in the East, and stated that he had often found Western sufferers more impatient, which often demanded severer methods. He illustrated this by citing a humorous incident. A lodging-house keeper, on learning that one of her boarders was to have an operation performed on a Wednesday, wrote to the surgeon asking that it might be postponed until Friday, as her daughter was to be married on Thursday, and they didn't want the corpse home until after the wedding. The address dealt mainly with surgery of the stomach, and related the deductions Dr. Jones has arrived at from his own experience of twenty-six cases. His first operation upon the stomach was in 1893,—a case of pyloric obstruction in a wiry woman. Senn's plates were used. This patient died in three days, the result not being encouraging, and Dr. Jones attributed the failure to the use of catgut instead of silk sutures. The introduction of Senn's plates and the Murphy button gave a great interest to intestinal surgery, as before 1890 operations on the intestines were rare. He discussed the preparation for operation, and first spoke of gastrostomy, an operation which he had performed five times for ulcer of the œsophagus. In four of the cases the operation was performed with very excellent results. He then discussed the class of case in which pylor-ectomy is indicated, and said that rapidity of operation in these cases is the very important factor; prolonged operation has generally proved fatal. A suitable case should be cancer of the pylorus. The time occupied in performing the operation is not great. In one of his cases he performed posterior gastro-enterostomy; this patient still lives, and it is now nearly three years since the operation. Gastro-Enterostomy was next discussed. This, Dr. Jones considered the most important and most interesting part of the whole subject. It is the most frequent and the most useful, and the simplest of all the operations performed upon the stomach. It is performed for pyloric cancer, ulcer and stenosis and for gastric ulcer, dilatation, etc. Nothing can be simpler than this operation performed with the Murphy button. Dr. Jones has

used it in fourteen cases, and in only one case was there any trouble. In two of his cases, which died from shock, he examined one and found perfect union. He has found that the passage of the button has taken from fourteen days to four months, and in several cases he has not been able to obtain the button. A recital of several cases followed, which proved very interesting. Dr. Jones closed his paper with a few words on perforating duodenal ulcer.

Dr. F. J. Shepherd, of Montreal, proposed a vote of thanks, Dr. A. A. Macdonald, of Toronto, seconded this; Sir James Grant, of Ottawa, supported the motion, which was unanimously passed by the Association.

A SURGICAL PROCEDURE FOR THE RELIEF OF OVARIAN-TENSION PAIN.

Dr. Henry Howitt, Guelph, Ont., read this paper. Is not pain, frequently, if not usually, caused by tension on some nerve filament? In Dr. Howitt's opinion the answer should be in the affirmative. The operation Dr. Howitt employs is quite simple. The ovary is exposed, and then a number of cross-sections are quickly made through the tense capsule in such a manner as to divide it. Then the large graffian follicles are opened. They are merely touched with carbolic acid. If the capsule is thickened a portion should be removed. Hemorrhage has never been troublesome. Adhesions give rise to no complications. Dr. Howitt recited the histories of two or three cases in support of the operation.

Dr. Lapthorn Smith stated that he had never heard of this operation before, and considered that it was original with Dr. Howitt.

SYMPOSIUM ON TUBERCULOSIS.

Professor Russell, of the University of Wisconsin, introduced this subject in a careful yet exhaustive paper on human and bovine tuberculosis and their inter-relation. The importance of any phase of investigation relating to tuberculosis and its relation to milk is unquestioned in these

latter days when the general public is beginning to appreciate, for the first time, the magnitude of the problem that confronts them in attempting to lessen the ravages of the "great white scourge" of the human race.

In considering this subject it may be reached from two points of view:

1. From the standpoint of animal industry.
2. From that of public health.

Bovine tuberculosis and animal industry.

The rapid extension of the disease amongst cattle within the last few decades has forced upon breeders and dairymen the necessity of considering this subject whether they desire it or not. It is customary in many quarters, even yet, to decry all consideration of this matter as unnecessary, inexpedient and harmful to the dairy interests. But, as is too frequently the case, the motive for such action rests upon a financial foundation, and many breeders are averse to a calm, judicious discussion of the matter simply because it may mean financial loss to them.

Since the introduction of the tuberculin test as an aid in the diagnosis of the disease in cattle, it has been positively determined that the malady, at least in its incipient form, is very much wider spread than was formerly supposed, but it by no means follows that all animals that react to the tuberculin tests are actually in a condition in which they or their products are dangerous to man and beast.

The slow insidious nature of the disease that characterizes it in the human is also to be found in the cattle, and not infrequently an animal may be infected with the seeds of the disease for a considerable time—even a year or so—without showing in any degree physical symptoms that are manifest to even the animal expert. Such animals are not diseased in the ordinary meaning of the term, *i.e.*, they are not capable of transmitting the disease, either directly or indirectly, through their milk or meat. The affection in such cases is latent; generally confined to various lymphatic glands, but animals so affected are, however, potentially

dangerous, for the latency of the disease may be overcome through the operation of various factors, and the chronic type may thus be awakened into the acute phase. It is in this way that the disease spreads slowly and unperceived through a herd. Before it has made such inroads as to cause actual death of any considerable number of animals, many more have acquired the trouble, at least in the earlier phases. Necessity of controlling its spread and eradicating it is evident for the sake of the herd itself, if from no other point of view. Successful animal industry, especially with cattle, requires that the herd shall be kept free from all taint of this disease. As to treating milk, Professor Russell said pasteurization and sterilization were the two best forms of applying heat to destroy the organism. He recommended the rotatory Pasteurizing machine, one of which has been used in Winnipeg for some years as the best method of removing organisms from milk.

Dr. Good, of Winnipeg, in discussing the paper said that it afforded him some relief to learn that milk is not so dangerous after all. He stated that he had been avoiding milk and all organic fluids for the past year or two, but he was glad to know that he could now go back to its use with the same freedom as in its younger days. He then moved a vote of thanks to Professor Russell, seconded by Dr. McArthur, which was unanimously adopted.

Dr. A. J. Richer, of Montreal, contributed the next paper on the Sanatorium Treatment of Tuberculosis. This treatment had been introduced by Dr. Trudeau in America under great difficulties, and at the present time this distinguished scientist was able to house and treat over one hundred individuals in his institution. According to Dr. Richer, the treatment is made up of rest, outdoor life, over-feeding and medical supervision. The latter was described as the key-note to success in phthisical treatment. Over-feeding was also emphasized.

The last paper was contributed by Dr. Gilbert Gordon, of Toronto, and it referred to the ætiology and the early

diagnosis of pulmonary tuberculosis. He spoke of the early stages of the disease, and thought that we ought to be able to diagnose it before the appearance of the bacilli in the sputum. Direct inheritance he considers very rare. The inhalation of dried sputum is the most direct cause. Dr. Gordon considered that we are woefully behind in Canada in fighting this plague, and more money should be spent by governments and philanthropic individuals in fighting this disease. He went carefully into the symptoms of the pre-tubercular stage and considered that a persistent cough was a very dangerous symptom.

Another important discussion took place upon this topic. Dr. Lafferty warned the profession in Ontario against sending advanced cases to the Northwest Territory. Dr. Barrick, of Toronto, pointed out that Ontario was leading in regard to the treatment of tuberculosis, and he hoped to see the sanatorium brought with a wide open door to all conditions of life. Dr. Brett, of Banff, suggested that the association should pass a resolution pointing out to the Parliament of Canada the necessity of providing for the establishment of sanatoria for the benefit of the community.

The report of the Nominating Committee was presented by Dr. W. S. Muir, Truro, N.S., who expressed regret at having to accept the resignation of their general secretary, Dr. F. N. G. Starr. Montreal was selected as the place of meeting in 1902, and a suggestion was left with the members of the Association that they meet in British Columbia the following year.

These officers were elected for the ensuing year :

President.—F. J. Shepherd, Montreal.

Vice-Presidents.—Prince Edward Island—S. R. Jenkins, Charlottetown ; Nova Scotia—T. F. Macdonald, Hopewell ; New Brunswick—Wm. Christie, St. John ; Quebec—J. Alex. Hutchinson, Montreal ; Ontario—Bruce L. Riordon, Toronto ; Manitoba—A. J. Macdonell, Winnipeg ; Northwest Territories—H. G. McKid, Calgary ; British Columbia—J. M. Lefebvre, Vancouver.

General Secretary.—George Elliott, 129 John street, Toronto.

Prince Edward Island—H. D. Johnson, Charlottetown ; Nova Scotia—J. M. McLean, North Sydney, C. B. ; New Brunswick—W. E. Ellis, St. John ; Quebec—C. F. Martin, Montreal ; Ontario—H. A. Bruce, Toronto ; Manitoba—J. T. Lamont, Treherne ; Northwest Territories—G. A. Kennedy, Macleod ; British Columbia—G. Morris, Vernon.

Treasurer—H. B. Small, Ottawa.

Executive Council—Jas. Stewart, T. G. Finley, J. M. Elder.

The Winnipeg meeting of the Canadian Medical Association will go down in the annals of the history of that Association as the best meeting ever held under its auspices. On the first day alone 130 members were registered, and the total number at any time reached 177, a number considerably larger than that at Ottawa last year, and second in point of numbers to the meeting at Toronto in 1899. A large number of new members was elected, particularly from Ontario, Manitoba, the Northwest Territories and British Columbia. Every province was represented at the Association meeting with the single exception of Prince Edward Island, one delegate coming as far as North Sydney, Cape Breton. The meeting was generally voted a pronounced success, and certainly the profession in Winnipeg and Manitoba and the citizens of Winnipeg more than eclipsed in point of social functions any previous meeting. The reception by the Board of Governors of the Winnipeg General Hospital, the reception by the ladies of Winnipeg at Wesley College, the special trip down to Lower Fort Garry, where Mr. and Mrs. Chipman extended their hospitality to the members and their wives and invited guests from Winnipeg, the visit to the Ogilvie Mills, the reception at Government House by Lieutenant-Governor and Mrs. McMillan and the special trip out to Brandon through the great wheat belt of Manitoba with the entertainment provided by the ladies of Brandon,—all

will stand as a series of social functions which have never been surpassed in the history of the Canadian Medical Association meetings. One of the best and most important discussions took place on the formation of a Medical Defence Union; and it is very gratifying to have to record it, that such an organisation was unanimously supported by the Association. All the leading officers of this protective Association are in Ottawa, and Dr. Russell Thomas, of Lennoxville, P.Q., along with Dr. W. S. Muir, of Truro, N.S., are deserving of much praise for the great good work they have performed in this connection. Much regret was expressed at the resignation of the General Secretary, Dr. F. N. G. Starr, of Toronto, who has so long and so faithfully, so ably and energetically, discharged the responsible and important duties of this position. At a time when the Association is so prosperous it is due to the new General Secretary and other officers that a united and earnest effort be put forth by all the members of the Association to continue that prosperity.

Selected Articles.

THE CAUSE OF DIFFUSE PERITONITIS COMPLICATING APPENDICITIS AND ITS PREVENTION.

Every surgeon who treats patients suffering from acute appendicitis must be impressed with the fact that an unfavourable outcome in any given case means that the infection, which was originally confined to the small space occupied by the vermiform appendix itself, has first invaded the tissues immediately surrounding this organ and has been distributed over the entire peritoneal cavity. In other words, in fatal cases the patient practically always dies, as the result of a diffuse peritonitis.

Other conditions may arise which may result in a fatal issue. There may be a septic thrombosis of the vessels in the vicinity of the appendix, or an empyaema, or even pyaemia, but by far the greatest number of deaths occurs from diffuse peritonitis, and if it is possible to prevent this, the mortality from appendicitis must at once fall enormously. In order to plan a means for the prevention of this condition, it is well to study the pro-

gress of the disease from its onset.

There is danger of the occurrence of diffuse peritonitis in the following classes of cases:—(1) In gangrenous appendicitis; (2) in perforative appendicitis; (3) in cases in which the caecal end of the lumen of the appendix is closed and the distal portion so thoroughly distended with septic material as to make its walls permeable to micro-organisms; (4) in the very rare cases in which there are small abscesses in the walls of the appendix not directly connected with its lumen, and (5) in cases in which there is a septic thrombosis of some of the vessels, but not sufficient to cause gangrene.

The first, second, and third conditions are so common that every surgeon who operates frequently during the acute attack has seen them many times.

Were it possible to keep the septic material in these cases within the circumscribed area in which it occurs primarily, it is plain that the condition would remain comparatively harmless.

The appendix is virtually surrounded on all sides, excepting in the direction of the median line by relatively fixed tissues. Above we find the lower end of the caecum and the caecal end of the ileum; to the right and in front is the parietal peritoneum; behind the peritoneum covering the iliacus muscle, and towards the median line it is surrounded by loops of small intestines. Moreover, the omentum extends far beyond its lower end. It is true that the appendix may be displaced downwards, but in this case it will again be surrounded by fixed tissues which seem especially adapted to dispose of septic material. Again in this case there is an enteroptosis affecting the caecum, and always with this a marked lowering of the transverse colon and stomach and with these the omentum. Thus we see that the natural anatomical arrangement for the protection of the general peritoneal cavity is extremely efficient. There is but one weak point in the anatomical provision for this protection, namely, in the direction of the median line, because the great mobility of the small intestines naturally favours the distribution of septic material to all parts of the peritoneal cavity. If we can prevent the small intestines from doing harm in this direction, we will have accomplished our end, theoretically at least.

At this point I wish to direct your attention to another important anatomical condition. The blood supply of the omentum is so enormous that it will readily dispose of a very severe infection by walling off the

surrounding structures if it is permitted to give its physiological attention to a single area. It is a well-known fact which every one who frequently operates during the acute attack of appendicitis, has had many opportunities to observe that the omentum crowds itself about any inflammatory or traumatic lesion within the peritoneal cavity the moment the latter occurs, and if left undisturbed, a few hours will suffice to cause efficient protective adhesions. These adhesions become stronger every hour and the blood supply in the omentum becomes greater, so that if no disturbance arises, one can reasonably expect efficient protection to the general peritoneal cavity from the omentum.

Another important fact must not be lost sight of in this connection. The fact that the surrounding structures are relatively fixed in position favours the condition of rest of the inflamed part and permits the omentum to act after the manner of a splint applied to an inflamed joint. The value of rest as a preventative to the extension of an infection in any part of the body cannot be over-estimated. Consequently, if it is possible for us to secure this condition of rest, we have gained another important point in the right direction.

In case the appendix is displaced upwards its position is even more favourable, because the available amount of omentum is thus increased. Again, if the appendix is retro-caecal in its position, which is very frequently the case, the infection of the general peritoneal cavity is more easily prevented than when in its normal location. If anteriorly misplaced, it is likely to be fastened to the anterior abdominal wall by the adherent omentum.

It is plain, then, that the infection of the general peritoneal cavity must occur from a disturbance on the part of the small intestines, and must be due to their peristaltic motion. It is significant that in almost all cases of severe acute appendicitis, the obstruction to the passage of gas and intestinal contents through the ileo-caecal valve is one of the early symptoms. Nature is trying to prevent this very dangerous disturbance by closure of the ileo-caecal valve. We have a condition corresponding to the contraction of the muscles surrounding an inflamed joint, to the closure of the eyelids in conjunctivitis, etc. Moreover, the muscles overlying the appendix become tense. Everything tends toward the establishment of conditions of rest in the vicinity of the inflamed organ.

It is a fact which has been demonstrated a great number of times, that peristalsis does not occur unless food or catharics are introduced into the stomach. If the attack occurs shortly after a meal and before all of the food has passed through the ileo-caecal valve, its presence may cause peristaltic motion in the small intestines. Upon reaching the ileo-caecal valve the latter may prevent its passage into the caecum, causing return peristalsis, and the intestinal contents are forced back into the stomach, whence it may be expelled by vomiting or be again forced into the small intestine, giving rise to further peristaltic motion. Moreover, it will give rise to the formation of gas, which must cause disturbance and pain in its attempt to pass the ileo-caecal valve.

This motion, it is plain, will be harmful primarily from the fact that it gives rise to pain by disturbing the sensitive inflamed tissues, and secondarily from its likelihood of carrying infectious material with which it has come in contact in the vicinity of the inflamed appendix to other parts of the peritoneal cavity.

Besides this, the physiological attention of the omentum can now no longer be directed to the single area of infection, because other parts of the peritoneal cavity require its protection, and such portions of the omentum as are not yet thoroughly adherent about the inflamed appendix are likely to be diverted from this point.

Theoretically, then, the disturbance which is to be feared to so great an extent is caused by the presence of food or cathartics in the stomach, and its logical remedy would be to absolutely prevent the introduction of any form of food or cathartics into the stomach and the removal by gastric lavage of any portion of food which may be retained in the stomach at the beginning of the attack. It may be necessary to perform gastric lavage twice, or at most three times, in order to entirely remove remnants of food which may have regurgitated into the stomach from the small intestines by reason of return peristalsis. That this is not only true theoretically, but also in practice, I have demonstrated in a large number of cases, and many other surgeons who have followed the same plan of treatment have informed me of the fact that their experience has agreed with mine.

It is true that a few surgeons have reported failures with this method, but an investigation of their treatment in each instance has shown that they disregarded one of the three cardinal points in the treatment. They either gave just a little liquid food by the mouth, or they gave

some form of catharics, or disturbed the rest of the intestines by giving large enemata, or they neglected removing the stomach contents by gastric lavage. Of course, the slightest amount of food is sufficient to start peristaltic motion of the small intestines, and the same is true of cathartics, and consequently, if either of these features in the treatment is omitted, one cannot hope for the same results. It does not matter what form of appendicitis may be present in any given case, it seems clear that this form of treatment must be useful, because in the milder cases it will result in rest of the affected part, and consequent rapid resolution; while in the severe cases it will guard against mechanical distribution of infectious material, and in all cases it reduces the tendency to meteorism, and stops the pain.

There is, however, one class of patients in which I have found this treatment of the greatest value. I refer to the class in which the appendix is gangrenous, or perforated, and in which there is already a beginning general peritonitis. These patients give the impression of being extremely ill. There is complete obstruction to the passage of gas or faeces. There is nausea or vomiting and marked meteorism; the pulse is small and quick; usually there is a high fever, but the temperature may be subnormal; respiration is rapid, and the abdominal muscles overlying the appendix are tense. The patient is in a condition in which I formerly operated at once, day or night, as a last resort, only to find that it was too late in more than one-third of the number of cases, the mortality increasing with the time that had elapsed since the beginning of the attack. In this class of cases there is still a recovery of over 90 per cent. if the principles laid down above are thoroughly applied.

If peristalsis is absolutely inhibited, as it can be, the infection will soon become circumscribed and the pus can be evacuated with safety. Moreover, the condition I have just described is in itself the result of the administration of food and cathartics. Had these patients received neither food nor cathartics from the beginning of their attack, the condition would never have advanced to this dangerous point. This refers particularly to a class of cases which Richardson has so well described as "too late for an early and too early for a late operation."

If the plan I have outlined above is carried out, the following changes are likely to occur:—The nausea and vomiting will cease after one or two, or at the most three, gastric irrigations. The meteorism and the pain will

decrease greatly during the first twelve hours, and will almost completely disappear in twenty-four hours. The pulse becomes slower and firmer and more regular, the breathing deeper, and the patient's general appearance improves to an astonishing extent. If the temperature was high, it will go below 1008 F. the first twenty-four hours, and in three days it will be practically normal. The abdominal muscles will become soft as soon as the stomach contents have been removed by gastric lavage. Usually the improvement is so rapid that one is tempted to spoil everything by giving nourishment by mouth, because the patient's condition does not seem serious enough to warrant such severe measures.

That this form of treatment, which I have employed since 1892, at first only in selected cases, and later more and more generally, is really of great value, is shown by clinical results. My mortality in cases of perforative or gangrenous appendicitis, with beginning diffuse peritonitis, is less than one-fourth as high as it was in the cases operated at once upon making the diagnosis, and even in advanced cases of diffuse peritonitis there has been a marked decrease in the mortality in my experience. It might be said that these cases were not due to perforated or gangrenous appendicitis, but that they were simply severe catarrhal cases, which are known to result favourably under any form of treatment. To this I would respond that I have later removed the appendices in many of these cases, and have almost invariably demonstrated the correctness of the diagnosis.

In my statistics I utilize only the cases which I have operated in the Augustana Hospital, because of these I have full and accurate records, while of those operated in other hospitals and in private homes my records are not accurate, because there the patients and assistants are not so completely under my control. From January 1st, 1898, to May 1st, 1901, I have operated in this hospital upon 565 appendicitis cases, which I have divided into three groups: (1), those who entered the hospital suffering from diffuse peritonitis; (2), those who entered the hospital suffering from gangrenous or perforative appendicitis, and (3), those who entered the hospital suffering from recurrent appendicitis in the interval between attacks, or at the beginning of a recurrent attack when the infectious material was still confined to the appendix. Of the first class I treated 18 cases, with 10 deaths, 55.5 per cent. mortality; of the second class I operated 179 cases, with 9 deaths, 5 per cent. mortality; of the third class I

operated 368 cases, with one death, 1.3 per cent. mortality. Total, 565 cases, with 20 deaths, 3.5 per cent. mortality. The statistics contain all patients who entered the hospital suffering from appendicitis; even those who died a few hours after admission.

Of Classes 2 and 3, all were operated, so there can be no doubt concerning their diagnosis. Of Class 1, all but 4 were operated, and these were in an absolutely hopeless condition when they entered the hospital. I will state also that during this time no patient suffering from appendicitis was refused admission into the hospital.

Judging from the authorities upon this subject, our mortality of 55.5 per cent. in diffuse peritonitis is as low as that recorded by any of the authors whose statistics contain a considerable number of these cases, while some authors with less than half this number report as low as 20 per cent. mortality. Krogius has compiled the statistics of fifty-eight authors whose combined mortality is a little over 70 per cent.

As compared with my own experience in former years, when all of these cases were treated surgically at once, my experience in this series of cases of diffuse peritonitis following appendicitis is quite encouraging.

It is in the second class, however, in which the greatest benefit from the treatment is found. In this class, according to most modern authorities, Murphy, Mynter, Porter, Lennander, Bull, and many others, there is a mortality of at least 20 per cent. This, in my cases, has been reduced to 5 per cent., and had the treatment been instituted at the beginning of the attack, I am certain that the mortality could easily have been reduced to one-half of this. In Class 3 there should have been no death. Many of these cases had been treated through their acute attack by the method I have described, before being sent to the hospital. But as not all of the cases I treated outside of the hospital came later to operation, it is not fair to utilise these in demonstrating the value of the method.

Again, I have treated a large number of cases through the acute attack of appendicitis with this method which have never been operated, and which I have not included in my statistics, because the correctness of the diagnosis could not be established by actually demonstrating the condition present in the appendix.

However, the fact that there was a mortality of less than one-third per cent. in so large a number of cases is significant. It shows the value of a method by which

cases of acute appendicitis in whom an operation is bound to give a high mortality at best can be changed to chronic appendicitis in which the mortality following operation is almost nothing. It is, of course, not possible to come to any definite conclusions from a collection of statistics, because there are so many differences which can not be balanced.

Among these cases one is especially instructive because it illustrates the danger of operating too early. The patient entered the hospital five days after the beginning of the attack. His condition was exceedingly grave, as indicated in the history. With an immediate operation I should have expected his death within thirty-six hours. The diagnosis was made of gangrenous appendicitis. He was placed on exclusive rectal feeding. Within twenty-four hours his pain had entirely disappeared, his general appearance improved greatly, the meteorism subsided, his temperature fell three degrees, his pulse came down forty beats per minute, his abdominal wall became soft, and twenty-four hours later I began to doubt my diagnosis. At the end of the fourth day his condition had improved so much that, upon his request, I concluded to operate, because he was normal in every respect with the exception of a slight induration in the region of the appendix and pain upon deep pressure. It seemed to me as though the process must have stopped just short of a perforation. Had he been left without an operation there could be no doubt but what he would recover temporarily from this attack. It seemed perfectly safe to operate. Upon opening the abdomen I found a perforated gangrenous appendix surrounded by a small abscess completely walled off by the omentum. I removed the appendix and the surrounding pus with great care, and drained the cavity, expecting the patient to recover, but a diffuse peritonitis developed, from which he died five days later. This case impresses the lesson that it is not wise to operate until the patient has fully recovered from the acute attack. Of course, he should be cautioned as regards his diet in order to prevent a recurrence, but I am confident that the mortality in my practice will be still smaller in the future, especially because I shall wait longer after the acute attack before removing the appendix.

The danger of rupture of a circumscribed abscess into the general peritoneal cavity has been the cause of great anxiety. My experience has led me to conclude that this practically never happens unless food or cathartics are

given by the mouth. In my entire experience it has happened but once, in a child, aet. 7, which was brought to the hospital on the fifth day after the beginning of an attack of gangrenous appendicitis with beginning diffuse peritonitis. It had received food and cathartics constantly since the beginning of the attack, and although its condition seemed hopeless, either with or without an operation, it improved slightly from day to day under exclusive rectal feeding, but never became well enough to make drainage of rather an extensive infection of the entire area between the umbilicus and pubis and right anterior superior spine of the ilium safe, and still, had I anticipated the likelihood of rupture into the remaining portion of the peritoneal cavity, I should certainly have made the attempt with the hope of bringing about a recovery. On the fifth day the abscess suddenly ruptured. I anaesthetised the boy within half an hour, made a free incision, washed out the peritoneal cavity, drained freely, but the child died in six hours. In this case gastric lavage had not been employed because the child was very nervous and we feared the effects of the fright. I have frequently seen cases in which food and cathartics were given in whom this accident occurred.

Aside from the benefit to the patient of increased safety, there are other advantages to be derived from this plan of treatment, which are well worth considering. Being able to operate during the quiescent state, drainage is not indicated, and consequently there is no likelihood of the concurrence of post-operative ventral hernia. With the reduction of the area of infection, the amount of peritoneal adhesions must necessarily be reduced. As a matter of experience I can say that faecal fistulae almost never occur in cases treated by this method.

Of course, all these advantages, as well as the prevention of diffuse peritonitis, can be accomplished if the appendix is removed during the very beginning of the attack, before the infectious material has passed beyond the walls of the appendix, but unfortunately it is but very seldom that a patient enters the hands of a surgeon at so early a stage.

I am positive that the mortality would have been at least four times as great had all my patients been operated at once, upon admission. There are three cases which do not properly belong in this group, because perforation had not actually taken place, but I am confident that this was only prevented by the treatment. Moreover, each one of these cases had quite advanced peritonitis at the time of admission, which would undoubtedly have pro-

gressed rapidly had not peristalsis been inhibited. In each of these cases the attack was exceedingly violent until this form of treatment was instituted, but subsided very promptly after commencement of this treatment.

Conclusions.—As a result of my clinical observations I am prepared to formulate the following conclusions:—

1. Peristaltic motion of the small intestines is the chief means of carrying the infection from the perforated or gangrenous appendix to the other portions of the peritoneum, changing a circumscribed into a general peritonitis.

2. This can be prevented by prohibiting the use of every kind of food and cathartics by mouth, and by employing gastric lavage in every case in which there are remnants of food in the stomach or in the intestines above the ileo-caecal valve, as indicated by the presence of nausea, or vomiting, or meteorism.

3. The patient can be supported by the use of concentrated predigested food administered as enemata not oftener than once in four hours, and not in larger quantities than four ounces at a time.

4. This form of treatment, when instituted early, will change the most violent and dangerous form of acute perforative or gangrenous appendicitis into a comparatively mild and harmless form.

5. Cases of perforative or gangrenous appendicitis with beginning general peritonitis can usually be carried through the acute attack safely with this method.

6. In all cases of this class gastric lavage should be practised in order to prevent the absorption of decomposing material from the alimentary canal.

7. In cases of doubtful diagnosis this form of treatment should always be employed.

8. This treatment will prevent a large proportion of the most troublesome complications and sequelae of appendicitis, such as ventral hernia, faecal fistulae, extensive adhesions, etc.

9. The patient should be permitted to recover fully from his acute attack before an operation is performed, except in cases encountered within the first thirty-six hours after the beginning of an attack or in case of the formation of a superficial circumscribed abscess.

10. It often requires but a small amount of any kind of food to change a harmless circumscribed into a dangerous diffuse peritonitis.

11. The treatment does not protect the patient against a subsequent attack.

12. It does not contra-indicate the removal of a diseased appendix before the septic material has extended beyond this organ.

13. It is indicated in all intra-abdominal conditions in which it is desirable to prevent the distribution of septic material by means of peristaltic motion.

14. The laity should be taught to stop feeding and giving cathartics to patients suffering from intra-abdominal diseases.—*A. J. Ochsner, M.D., of Chicago in Medical Press.*

Progress of Medical Science.

MEDICINE AND NEUROLOGY

IN CHARGE OF

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TREATMENT OF PNEUMONIA WITH SALINE INFUSIONS.

Recent mortality statistics show that pneumonia has displaced consumption as the leading cause of death. Some years ago a study was made of the comparative mortality under treatment at the beginning of the century, which employed bleeding, calomel and emetics, the result of the comparison being unfavourable to the modern supporting theory of treating the disease. If we are able to estimate correctly the signs of the times in the treatment of this disease, the stasis theory is rapidly yielding to the conception of a toxemia. It was but natural to think that the labouring heart, in a case of pneumonia, should have its work enormously increased by the consolidation of the lung, and the consequent difficulty of carrying on the pulmonary circulation. A consideration of the effects of pneumo-thorax effusions in pleurisy and other conditions in which a portion or even the whole lung was out of use ought early to have taught that the mere mechanical hindrance to the circulation of the lungs was comparatively insignificant. A symptom that is present in over two-thirds of the cases, and in nine-tenths of those that are severe, is albumin in the urine, the large majority having this symptom associated

with casts. This shows the profound toxemia which exists, and the labouring heart is not caused by a mechanical stoppage to the circulation, but by interference with its nutrition caused by a toxin. Elimination in typhoid and other systemic infections has long been recognized to be of value, but the stasis theory of pneumonia has greatly interfered with its application in the treatment of pneumonia. Inhalations of oxygen, which some have believed to be so efficient, were based upon the theory of a limitation of atmospheric air, though it is rare in pneumonia that more than one-fourth of the aerating surface is involved, and experience shows that from other causes not associated with toxemia more than one-half the entire surface of the air cells may be out of use, without seriously compromising respiration. The use of digitalis from the beginning of the disease is likewise based upon the theory that the heart had an extra amount of work to do, because of the difficulty in pushing the blood through the engorged lung. No one has seriously proposed to treat typhoid fever with large doses of digitalis, notwithstanding that the heart sometimes fails in that disease.

A study of a large number of cases treated on the old theories of elimination shows its efficiency in pneumonia. Of course, by the older physicians, this was carried to an extreme. Bleeding, calomel, and sometimes emetics, were employed, regardless of the condition of the patient, but solely to combat a hypothetical condition which was supposed to be productive of inflammation. Notwithstanding these drawbacks, the results as shown in the mortality table were favourable, because whatever the errors of this treatment, it in effect secured a rapid elimination of toxic products from the blood.

At present there is a tendency to return to the treatment of the fathers, and we predict that with a recognition of pneumonia as a toxic disease, and not one in which the chief difficulty is stasis, there will result such a change in treatment as will materially lower the present frightful mortality. The excellent results achieved in the use of baths and friction and elimination by the kidneys will be supplemented by the use of normal salt solution injected hypodermically, or into the rectum, or transfused directly into a vein. If the latter method is employed, it must be followed by the abstraction of an equal quantity of blood. Even in cases in which the solution is used by the bowels or under the skin, it would probably be better to supplement it by the withdrawal of a certain amount of blood; this eliminates the toxin and dilutes the blood

serum and improves the nutrition of the heart muscle. Systematically tried in pneumonia, it will be found to be far more efficient in stimulating a labouring heart than digitalis or strychnine supplemented by inhalations of oxygen.—*Medicine.*

EPIGASTRIC PAIN.

H. W. Bettman, in the *Cleveland Journal of Medicine* for July, 1901, says that epigastric pain occurs in gastritis, ulcer and cancer of the stomach, and in hyperchlorhydria. It may occur in gastric syphilis and in malaria, and the relation of this symptom to the foregoing conditions is fairly well understood.

It is frequently not recognized that gall-stones and inflammation of the gall-ducts may lead to epigastric pain, which is often mistaken for gastric disease. The author regards it as probable that the majority of cases diagnosed gastritis, accompanied by paroxysmal pains in the epigastrium, with prostration and collapse, are in reality cases of gall-stones and cholecystitis. In the epigastric pains due to gall-stones the attacks occur independently of the taking of food, and come on without apparent cause. The writer lays it down as a rule that "gall-stones should be suspected whenever patients complain of regularly recurring, or paroxysmal, severe epigastric pain, coming on several hours after eating, and when a careful examination of the digestive functions of the stomach reveals no abnormality."

Epigastric pain is sometimes dependent upon spinal disease. Hilton describes a case of a young patient, who had been treated for a long time for disease of the stomach, and was found to have a tuberculous process between the sixth and seventh dorsal vertebrae.

Epigastric pain may be produced by pelvic lesions, and more rarely by eye-strain. Such a diagnosis is usually arrived at by exclusion, namely, correct habits, regulating the diet, and increasing the amount of exercise effecting no improvement in the pain.

In chlorosis, epigastric pain of a gnawing or boring character, increased by the ingestion of food, is sometimes found. In many respects it suggests gastric ulcer. There is an absence of nausea or vomiting, and normal or diminished acidity of the gastric juice. It is found that this sort of pain yields readily to the administration of Bland's pill and Fowler's solution.

Arterio-sclerosis is sometimes accompanied by epigas-

tric pain. Elderly patients often complain of a cramp just below the ensiform cartilage, coming on usually after meals when any exercise is indulged in. Even slow walking suffices to rouse the pain, which ceases as soon as the patients stand still or sit down. The peculiarities of this pain are that it occurs in those of advanced years, is most pronounced in the two or three hours following the ingestion of food, and is not accompanied by local tenderness. *Medicine.*

PNEUMONIA.

No routine treatment for pneumonia exists, but there are many approved therapeutic measures. Among these Crook (Phil. Med. Jour.) mentions the patient's surroundings, a cheerful, well-ventilated room with temperature between 65 and 72 degrees, digestible liquid food and cold applications to the chest. Poultrices are not much advocated of late, blood-letting is coming more in favour in florid cases and where the heart is seriously embarrassed by the pulmonary obstruction, or cyanosis or dyspnoea prevails. The hypodermic injection of saline solution in connection with the blood-letting is advised by Michel. Arterial sedatives are less favoured than formerly, though they still have some advocates. Routine purgation and antipyretics are generally condemned, and the profession is still at variance to some extent as regards the use of opiates. Crook thinks that on the whole they should not be resorted to until insomnia, pain or restlessness renders them necessary. Alcohol is losing favour, and the weight of opinion is against the use of digitalis. Oxygen inhalations are safe, but their usefulness is disputed. As regards specific medication to destroy the pneumococcus in the blood, there is some evidence of the value of the salicylates, creosotal and the silver salts internally. Serumtherapy of the disease is still in the experimental stage, a standardized serum is not yet available, and the progress in this direction during 1900 has been very slight.

SURGERY.

IN CHARGE OF

ROLLO CAMPBELL, M.D.,

Lecturer on Surgery, University of Bishop's College ; Assistant Surgeon, Western Hospital ;

AND

GEORGE FISK, M.D.

Instructor in Surgery, University of Bishop's College ; Assistant Surgeon, Western Hospital.

CAMPHOR IN THE TREATMENT OF VARICOSE ULCERS.

Camphor is a drug which for many years was held in great esteem, especially in extra-professional circles ; indeed, the late M. Raspail founded a school of therapeutics which still rejoices in great popularity in France, based on the use of camphor internally and externally as a curative agent. Its anti-spasmodic properties, though well authenticated, have of late fallen into disrepute, or at any rate into disuse, and externally it is only employed in this country in the form of a liniment of which it is but a subsidiary constituent. Two German physicians have recently called attention to the value of camphor dressings in promoting the cicatrization of varicose ulcers of the legs which are notoriously refractory to treatment. They make use of an ointment containing 2 per cent. of camphor, with from fifteen to twenty parts of oxide of zinc, or, if this be found too irritating, they prescribe a mixture of two parts of camphor with forty parts of zinc oxide, and fifty parts of olive oil. An alternative application is a solution of the drug in spirit, but this must only be applied after the ulcerated surface has been thoroughly cleaned of scabs and crusts by poultices. It is asserted that under this treatment the most obstinate ulcer will cicatrize within three weeks, which is more than is claimed for the much lauded oxygen treatment, over which, moreover, it has the advantage of being more generally applicable at a vastly smaller cost.—*The Medical Press.*

EXAMINATION OF THE BLOOD IN SURGERY, ESPECIALLY FROM THE POINT OF VIEW OF DIAGNOSIS.

Silhol says that Hartmann, of Paris, was the first to examine his patients systematically for blood changes. Mikulicz examines every patient in his service, while certain American surgeons, as the author states, do likewise. It seems that in France, however, the matter has

been as a rule neglected. Three points should be observed: (1) The determination of the hemoglobin; (2) a count of the white and red elements, and (3) dry specimens to show the varieties of leucocytes as well as the form of the red elements present. Interesting practical results are to be attained. Mikulicz does not operate when the hemoglobin sinks below 40 per cent., as the patient is too weak to stand it. Increase of the white elements suggests a reaction in defence of the organism, and is of the utmost importance. The author appends a large number of cases to show some of the interesting details in connection with the subject of differential diagnosis as aided by a study of the blood.—*Revue de Chirurgie*.

FATAL TREATMENT OF ANEURISM BY THE GELATINE METHOD.

Two cases of considerable medical interest were investigated last week at Guy's Hospital by the City of London coroner. As most of our readers probably know, a new method of treating aneurism by the subcutaneous injection of gelatine has recently been introduced. One of the house-surgeons at Guy's, Mr. L. Stamm, had three cases of thoracic aneurism under this specific treatment. He himself sterilized the gelatine, of which several ounces were injected into the leg or other part of the body, so as to enter the general circulation, where it increases the coagulability of the blood and so leads to the consolidation of the sac. Of the three cases thus treated, one was discharged cured, while the two others developed tetanus and died. There can be no doubt that the specific organism of tetanus was introduced along with the gelatine. This accident is most unfortunate, as it will tend to cast a stigma upon what is undoubtedly a valuable scientific method of treating an incurable disease. No blame can be attached to the house surgeon, who had taken every precaution possible from a human point of view. The treatment was first introduced by Lancereaux, of Paris, who administered every six or eight days four to five grammes of gelatine in two hundred cubic centimetres of 0.7 chloride of sodium solution. If properly sterilized there should be local reaction at the point of injection. Lancereaux reported five cases of aneurism, of which three were cured. It is therefore obviously unfair for the newspapers to speak of the method as hospital experimentation upon patients.—*Ed. Med. Press*.

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Editorial.

ST. FRANCIS MEDICAL ASSOCIATION.

A meeting of the district of St. Francis Medical Association was held in Sherbrooke on 11th of September. The reading of prepared papers was dispensed with, on account of the amount of general business which claimed attention. Several very interesting cases met with in practice were detailed. The following were elected officers for the ensuing year :—Dr. Rioux, Sherbrooke, president ; Dr. D. W. Smith, Sherbrooke, 1st vice-president ; Dr. McCabe, Windsor Mills, 2nd vice-president ; Dr. Thomas, Lennoxville, secretary-treasurer ; Dr. Gadbois, Sherbrooke, assistant secretary. Council—Drs. Worthington, Pelletier and Williams. Dr. Thomas, who had attended the meeting of the Canadian Medical Association at Winnipeg the last three days in August, reported that the Association had endorsed the principle of the Medical Defence Union, as formed by the St. Francis Medical Association, with the exception of the name, which it was decided to change to that of the Medical Protective Association. The St. Francis District Medical Association is a comparatively youthful association, but it appears to have a good deal of vitality and energy.

The New York *Medical Record* of August 17 says: "It is reported that Mr. Monson, Colorado State Dairy Commissioner, has offered to submit himself to inoculation with bovine tuberculosis in order to test the question of the communicability of this disease to man. He is said to be a believer in the non-identity of the two forms of tubercle bacilli. If there are many such with the courage of these convictions, the solution of this problem should not be long delayed."

**THE WINNIPEG MEETING OF THE CANADIAN
MEDICAL ASSOCIATION.**

Apart from the very interesting and accurate report of the papers which were read and the discussions which took place, which will be found in another part of this issue of the *Record*, a short editorial on some of the other features of the meeting may not be out of place. When it was decided to hold it this year in Winnipeg it was not without misgivings on the part of many members as to the success which might be expected to follow such an experiment. When it is remembered that many of the eastern members would have to travel over two thousand miles and the western members over a thousand, it must be admitted that there were some grounds for doubting whether the meeting would have a large attendance. But the actual facts proved that these fears were unfounded, for the registered attendance was the largest in the history of the Association, now extending over thirty-four years, and nearly fifty of those who attended travelled over a thousand miles to reach the meeting and another thousand miles to return home. It was the unanimous opinion of all present that the journey was a delightful one, in the course of which friendships and acquaintances were formed which will probably last through life, and that the meeting at Winnipeg, both from a scientific and social standpoint, could not have been surpassed. So well satisfied was everybody with this meeting, it was decided that after the one next year in

Montreal the meeting of 1893 should be held at Vancouver, three thousand miles from Halifax, where many of our members live. Our British brethren could hardly imagine how easily and pleasantly this long journey can be made in the splendid "Imperial Limited" train of the Canadian Pacific Railway, which makes the run from Montreal to Vancouver in exactly one hundred hours. One has a good night's rest in a spacious and comfortable berth, and after washing and dressing, and even shaving, for which there is every convenience, one walks a few hundred yards along the corridor and vestibules, under cover all the time, to the dining car, where an hour is spent in pleasant company over a breakfast which could not be surpassed at the best hotels. Then you return to your own or to some other car where groups of eight or ten gather together in the smoking compartment, and spend the time till lunch in relating experiences and making or renewing acquaintances. Another hour is spent in the dining car, where, perhaps, as in our own case, one finds himself seated beside some distinguished army or navy officer, who entertained us with an account at first hand of the war in China, and the relation of much information concerning the manners and customs of the various natives he had met. During the afternoon a stop is made sometimes for an hour, and a street car ride is taken through some interesting town. After dinner the evening is spent in telling stories or playing cards.

We would strongly advise those who intend to take this trip in 1903 to go and return by what is known as the Lake and Rail Route, by which two delightful days are spent on the magnificent inland ocean steamers traversing two of the great lakes from Owen Sound to Fort William. This was a never-to-be-forgotten pleasure to the fifteen or twenty doctors and their wives and daughters who formed the party, and was alone worth the whole cost of the trip. Montreal was represented by nine members, every one of whom contributed a paper, among them being Drs. Roddick, Shepherd, Buller, Laphorn Smith, Hutchison, Martin, Finlay, Richer and Drummond, while three others,

Sir Wm. Hingston, Dr. Blackader and Dr. Gordon Byers, sent papers. Dr. Roddick made one of the best addresses of his life on Interprovincial Registration, and Dr. Shepherd gave an interesting demonstration of skin diseases with lantern views. Among the foreign visitors were Dr. Edebohls, of New York ; Dr. Stanbury Sutton, of Pittsburg ; Dr. Cullen, of Baltimore ; Dr. Bracken, of Minnesota ; Dr. Warner, of New York ; Dr. Westbrook, of Minnesota, and Dr. Russell, of Wisconsin. The paper of Dr. Owen Jones, of Vancouver, on cases of intestinal surgery, was a remarkable one, and could hardly have been excelled by the most eminent men of New York or London.

The city of Winnipeg was a surprise to everyone ; its magnificent streets and street car service ; its substantial buildings ; its beautiful parks, and the immense amount of business and prosperity everywhere evident. We all agreed that it would soon outrival its older sisters in the East. The hospitality of the profession and the laity of Winnipeg it will be hard to equal ; the public reception at Winnipeg in the Wesleyan College ; the afternoon tea at Lower Fort Garry, given by Mr. and Mrs. Chipman, the Hudson's Bay Commissioner ; the reception given by the Lieut.-Governor and Mrs. McMillan, and the trip to Brandon to view the wheat fields, a never-to-be-forgotten sight, followed by a luncheon tendered by three physicians of that town, and cooked and served by the ladies of that place ; and the visit to the Ogilvie Mill in Winnipeg, the largest in the world, where the delicacies of London were washed down with the finest wines of France ; these were all events which will long remain fresh in the memory of those who were so fortunate as to participate in them.

The water supply of Winnipeg was an object lesson which many an older city might well learn from. The city being built at the confluence of two rapid but very dirty rivers, the Assiniboine and the Red River, was well situated for drainage ; but the water supply was very bad ; so an immense well was dug a mile from the city, forty feet deep, where an inexhaustible supply was found ; but it

contained so much carbonate of lime and magnesia that it would have ruined the furnaces and boilers; so by stirring in five tons of lime with three million gallons of water, the substances which make the water hard are precipitated, after which the water is filtered through hundreds of frames of cotton, until it comes out as clear as crystal, and free from microbes and foreign matters. As population pours into the North-West, as it is bound to do, there will arise a demand for hundreds of doctors from the overcrowded profession in the East; and when the call comes, happy will be the men who hear it and settle down to practice in what will soon be known as the granary of the world.

A. L. S.

PUBLISHERS DEPARTMENT.

CANADIAN HOME JOURNAL BOUGHT BY MR. HUGH C. MACLEAN.

That the tendency to amalgamation nowadays has been extended to journalistic circles as well as commercial is shown by the recent purchase of *The Canadian Home Journal* by Mr. Hugh C. MacLean, publisher of *The Ladies' Magazine*, Toronto. The journal, which was established many years ago, will be discontinued as a distinct publication, and will be merged into *The Ladies' Magazine*, which has already won a place for itself as the popular home paper for Canadian women.

It is with confidence of the merit of their product, also in view of the eminent satisfaction Pil Orientalis (Thompson) has given among physicians using it in their practice that the Immune Tablet Company, Washington, D.C., have adopted the unusual course at great expense of sending out complimentary boxes so physicians may prove the exceptional merit, aphrodisiac effects and general tonic value before prescribing it to their patients, and they can rely upon obtaining only the best of possible results.

Pil Orientalis (Thompson) is put up in three strengths, No. 1, No. 2 and No. 3 extra strong, and it is always advisable in obstinate or "depraved" cases to put the patient on a full course of No. 1 rather than attempt to bring the sexual organs into sudden activity.

After a fair exhibition of Pil Orientalis (Thompson) the Immune Tablet Company would be pleased to receive any comments, particularly if unfavourable, as they may be able to give some suggestions to meet some of the many complications in this distressing class of disease.

CANADA MEDICAL RECORD

OCTOBER, 1901.

Original Communications.

AUTHOR'S ABSTRACT.

TWO CASES OF BLADDER SURGERY. TRANSPLANTATION OF THE URETER FOR URETERO-VAGINAL FISTULA ; AND A SEVERE CASE OF VESICO-VAGINAL FISTULA CURED BY AN IMPROVED METHOD.

By A. LAPTHORN SMITH, B.A., M.D., M.R.C.S., England.

Professor of Surgical Diseases of Women in the University of Vermont, Burlington, and Professor of Clinical Gynecology in Bishop's University, Montreal ; Fellow of the British Gynecological Society and Fellow of the American Gynecological Society ; Gynecologist to the Montreal Dispensary, and Consulting Gynecologist to the Women's Hospital ; Surgeon in Chief of the Samaritan Free Hospital for Women and Surgeon to the Western General Hospital, Montreal.

Case 1. Patient had her first child at the age of thirty-five, and having besides a male type of pelvis, the labour was very difficult.

Residing a long way out in the country from Vancouver it was difficult for her physician to obtain help, and when it came, the pressure of the child's head during several hours had already caused sloughing of the vagina and about an inch of the ureter. The damaged part was replaced by a cicatricial tissue, but a uretero-vaginal fistula remained. Nearly all the urine from the right kidney came away, causing the vulva to become covered with painful ulcers. After two years of great misery she decided to go to England to have an operation, partly because she had friends there. She was admitted to St. Bartholomew's Hospital, where she underwent two operations on the

vagina for closure of the fistula, but both of them failed, because the cicatricial tissue allowed the stitches to cut out.

A third operation was proposed, but she refused it and returned to Canada, being admitted soon after to the Western Hospital under my care. After making a series of careful experiments to ascertain whether it was really a uretero-vaginal fistula or not, plastic operations on the vagina were twice repeated without any result, but she was promised that if they failed, she would be cured by a more serious operation, which she readily consented to. Accordingly, on the 15th Aug., transplantation of the ureter was undertaken as follows: the abdominal wall was incised down to, but not through the peritoneum, and the latter was pushed off the pelvic wall until the ureter was found. This was tied, and cut off close to the cicatricial tissue surrounding its lower end about one inch from the bladder; the proximal end was not tied nor hurt in any way, but was gently held in a gauze sponge until it was introduced into a diagonal opening in the upper and anterior surface of the bladder, where it was firmly attached by fine catgut stitches, suturing the mucous membrane of the ureter to the mucous membrane of the bladder, and silk stitches fastening the fibrous coat of the ureter to the muscular wall of the bladder. For fear of accidents, a drainage tube and gauze were left in for a day or two, but there was no leakage. An important precaution was the leaving of a glass catheter *a demeure* for four or five days. Not a drop of urine has come by vagina since, and six weeks after the transplantation, when she left the hospital, she was able to hold her water four hours.

Case II. This was a very stout and flabby woman of forty, who was delivered of a very large child with great difficulty by the aid of forceps, the male blade of which caught the anterior lip of the uterus, the vagina and bladder against the arch of the pubis, making a diagonal cut through all three of them, extending from the urethra to the left vaginal fornix, and making an opening through which three fingers could be introduced into the bladder.

This was certainly a bad case, and would have been doubtful of cure by the ordinary method, while it was permanently cured at the first attempt, and without the slightest difficulty by the method now described, and which has proved equally satisfactory in several other cases.

Instead of paring the edges and suturing, the cervix was separated from the vagina and bladder as in the first step of vaginal hysterectomy, and when this was accomplished, the long gash in the side of the cervix required very little more paring of the edges to make it ready for suturing with catgut. The anterior vaginal wall was then separated from the bladder with the finger, except at the edges of the fistula where they were adherent, and where the scissors were required. The hole in the bladder was then closed by a fine running suture of chromicised catgut, taking in the muscular wall of the bladder only, which turned the mucous membrane in and left a thick ridge at the place of the tear. The bladder was then tested with sterilized milk under high pressure and there was no leakage. But this row of sutures was reinforced by sliding the bladder half an inch to the right, and when sewing up the vagina with silk worm gut, each interrupted suture took in a bite of the muscular wall of the bladder half an inch to the right of the line of the tear. A self-retaining catheter was kept in for four days, although it was hardly required, for, having become blocked by a small blood clot at the end of twelve hours, the family physician, Dr. Virrol, removed it and cleaned it, and on reintroducing it, sixteen ounces of water came away. The silkworm gut stitches were removed in ten days, and the woman got up and has done her work ever since without the slightest sign of leakage, now three months ago. This operation has the advantage of making the most difficult cases easier than the easiest by the old method of paring the edges.

248 Bishop Street, Montreal.

SEBORRHOEIC DERMATITIS.

By J. Leslie Foley, M. D., L. R. C. P., London.

Physician to the Skin Department of the Western Hospital.

Unna claims seborrhoeic eczema or seborrhoeic dermatitis to be now one of the common forms of skin disease.

Certainly, when confronted by one of the multiform varieties of eczema, one should make sure that one has not got a case of this kind on hand.

To mistake it for an ordinary case of eczema would be direful in results as regards treatment, as what would be suitable for an ordinary eczema would not be beneficial in a seborrhoeic eczema.

According to Crocker, seborrhoeic dermatitis may be divided into three forms: seborrhoea eczemaformis, resembling eczema; seborrhoea psoriasiformis resembling psoriasis; seborrhoea papulosa seu lichenoides, resembling lichen.

There is also a form of seborrhoeic dermatitis occurring in children.

What are symptoms of seborrhoeic dermatitis?

The eruption usually begins on the scalp as a seborrhoeic sicca, and then spreads downwards over the body. The itching may be severe or scarcely noticeable.

Morris says the course of the eruption is as follows: beginning on the head it extends over the scalp, thence to the ears, forehead and cheek, the neck and down the front of the chest and back, especially into the interscapular furrow, into the axillae and bends of the elbows and hands, into the groin and crura-scrotal fold, over the genitals, behind the knees and between the toes. The affection begins as a latent catarrh; first manifests itself by an agglutination of epidermic scales, which are thrown off in large lamellae.

There is a faulty distribution of fat in the skin, hair becomes abnormally dry, while the epidermis and exfoliating scales are abnormally fatty. Scales may increase in quantity or become massed into fatty crusts between the hairs, leaving a bald spot on the top of the head.

Skin may become red and swollen, and weeps profusely. Fatty scales do not form, or are washed away by

the discharge. The rete may be laid bare. Unna calls these the scaly, crusty and moist forms.

In seborrhoeic eczemaformis the eruption resembles an eczema under depressing influences, either mental worry or anxiety or bodily illness. Acute inflammation supervenes, scalp becomes hot and red, covered with flaky and abundant scales. Scales are softer and less adherent than in ordinary eczema. The nose, cheeks and forehead are independently attacked with a mild inflammation, being pale red with defined margin and dry, scaly surface.

Seborrhoea psoriasiformis, resembling psoriasis, consists of well-defined and bright red patches, with scanty, scaly and fatty crusts. Eruption met chiefly in axillae and on the trunk. The scales are more fatty and less abundant than in ordinary psoriasis.

Seborrhoea papulosa resembles somewhat lichen, slight itching, limited to front of chest and interscapular region. Begins as a group of rounded, small, pin-head-sized, bright red papules with scales at their apex, which coalesce into a disc. Have a red, slightly raised papular margin, occur in circles or segment of circles, are slightly scaly and greasy. Seborrhoea of scalp is often associated with it. This occurs in people who sweat much, and in England is known as the flannel rash.

Whether seborrhoeic dermatitis is of a parasitic nature is still a moot point. What part the bottle bacillus of Unna plays, it is still undecided. Unna claims the pathological lesion to be in the coil glands and not in sebaceous glands.

About three years ago I had under my care at the Western Hospital a case illustrating the eczema form of seborrhoeic dermatitis. A waiter by occupation, 25 years of age, of temperate habits. No history of cutaneous disease in family.

The eruption was exclusively distributed over the scalp, forehead, upper and lower extremities and abdomen. On the scalp it was of the pustulo crustaceous character, with fatty scales. The eruption was more abundant here

than anywhere else. The indication for treatment in these cases are, first, to remove crusts with olive oil or alkaline baths. To tone up the system with tonics and employ anti-parasitic ointments or lotions : resorcin, sulphur, acid salicylic, etc.

The treatment I adopted in the above case was, for the scalp, : euophen, gr. v.; hydr. ammoniatum, gr. xx.; vaseline, $\frac{3}{4}$ i. For the forehead, hydr. ammoniatum, gr. xx.; vaseline, $\frac{3}{4}$ i. For the body, resorcin, gr. xv.; oleum olivæ, $\frac{3}{4}$ ii.; lanolin, $\frac{3}{4}$ i. Internally, the administration of a bitter tonic.

In about three weeks' time the patient left the hospital cured. Seborrhoea and syphilis are frequent concomitants.

Selected Articles.

DIAGNOSIS IN DISEASES OF INFANCY.

By JOHN ZAHORSKY, M. D., St. Louis.

Clinical Lecturer on Children's Diseases, Washington University Medical Department
Attending Physician to the Bethesda Foundling Home.

FEVER.

In a previous article, fever in its diagnostic significance was discussed. It is only necessary here to refer to it, and repeating that fever, as a rule, indicates the presence of an infectious disease. It is the task of the physician to locate the infection and determine its character. In practice, however, we find certain clinical pictures, as I prefer to call them, some of which we will consider at present.

1. *The Child has high fever (102 to 108 degrees) and no other special symptoms are present.*

This is one of the most frequent group of symptoms in infancy. The mother informs the physician that the infant has had fever for one to two days, but can give no other definite information. There is no cough, no crying and no intestinal disturbance. No symptom present points to any particular organ of the body.

Having excluded thermic fever by the absence of excessive heat we recognize that the disease is an infection, and we must seek its location. In spite of the fact that no symptoms point to any particular organ, we successively

examine the chest, the abdomen, the limbs, the nervous system, and finally the throat. In the vast majority of acute fevers, having no special symptoms, the throat is the site of infection. If nothing is found in any of these regions, we present ourselves two possibilities :

- (1) There is a blood infection.
- (2) The infection is in a place where a local manifestation requires longer than the existence of the present fever.

I. INFECTIONS OF THE BLOOD.

Is the disease malaria? We know how easily physicians who practice in malarial districts make this diagnosis. But we must seek for corroborative signs. In malaria the fever is often preceded by a chill in older children, and infants by blueness and coldness of the extremity. The liver and sometimes the spleen are swollen. The skin has a slightly yellowish hue. The fever is intermittent or distinctly remittent. Perhaps there have been previous attacks, or the season is one in which mosquitoes are very active. But the crucial test is finding the plasmodia in the blood, and finding an absence of leucocytosis, the therapeutic test—the subsidence of the symptoms on the administration of quinine is practically worthless in isolated cases, since so many febrile movements in children are fleeting, and quinine acts beneficially in a variety of infectious diseases.

If there exist certain facts opposed to malaria, or if the plasmodia is not found, we consider other blood infections. Typhoid fever has a gradual onset, and children are sick several days before a physician is called.

Various forms of septicemia depend for their existence on a local infection, and then the latter exists, the former may be diagnosticated. Very puzzling are those forms depending on some micro-organism in the blood and which terminate in endocarditis and cardiac valvulitis. Fever may exist for several days before a cardiac murmur is audible.

2. LATENT LOCAL INFECTIONS.

The infection may be situated in some internal organ, but on account of its depth or the smallness of the tissue involved it may escape observation. This happens very frequently in the lung. Two or three days may elapse before the inflammation has spread sufficiently to be recognized, but rapid respiration, a suppressed cough and

the expiratory moan are rarely absent, even when physical signs are wanting. Then the blood shows a marked leucocytosis.

The disease may be in the intestinal canal. The decomposed putrefactive intestinal contents may as yet not have been expelled. During the summer months infection of the intestinal contents must constantly be borne in mind. A purgative will usually bring to light the infected mass of food.

In diseases of the colon, the fever may be present from a few hours to two days before the bloody mucous stools reveal the presence of a colitis.

Meningitis in infants may exist for a few days without any cerebral symptoms. I have seen cases in which high fever existed and the infant was playful and apparently only slightly ill. A bulging fontanelle should make us suspicious.

Influenza may occur without local manifestations. Here the diagnosis is possible only when other members of the family have the typical form of this disease.

At the onset of many acute infectious diseases it may be impossible to make a positive diagnosis. In mumps, measles, scarlet fever, small-pox and anterior poliomyelitis a diagnosis may not be made at our first visit. It is best to state to those interested that a diagnosis has not been made rather than to make a guess.

The occurrence of suppurative inflammation in various internal organs may give no local signs, and are extremely puzzling, particularly in infants. Older children may assist in locating the trouble, by pointing to the place of pain. In this class are suppurations in the liver, kidney, spleen, appendix, pleura, brain and deep intermuscular tissue. In the absence of any local signs we must be content to wait. A good sign, however, is the fact that these diseases are often very painful, and it is this element which should make us suspicious.

In all these infections the blood shows a marked leucocytosis.

While the terrestrial temperature is over 95°, we should suspect thermic fever. By the exclusion of all infections, and by the presence of causes which retard heat dissipation from the body, this disease is corroborated. A diminished water supply is usually found to be present.

In the newly-born who receive as yet no mother's milk and who are deprived of water, thermic fever frequently develops. Here it is known as *inanition* fever.

The newly-born are usually kept too warm. It is rarely necessary to resort to the theory of reflex action to account for a fever.

Lithiasis, teething, intestinal worms, irritation of the skin, and others—all these have been placed in the etiology of fevers, but as our knowledge of the infectious diseases extend these causes are relegated to the rear.—*Medical Fortnightly*.

THE ANTISEPTIC TREATMENT OF TYPHOID FEVER.

By CHARLES F. HOPE, M. D., of Coatesville, In 1.

(Abstract from the *Wisconsin Medical Recorder*, Jan., 1901.)

The ingenuity of the human mind has evolved many methods of treatment for typhoid fever and some so-called specimens have been introduced, but, with a few exceptions, these latter innovations have lapsed into innocuous desuetude.

There seems to be a growing tendency on the part of many clinicians and hospital staff-physicians to question the reliability of any method of treatment except by means of hydrotherapy, but the fact remains that a vast majority use drug antipyretics and intestinal antiseptics in the treatment of typhoid fever. In this connection it may not be improper to quote a paragraph from Dr. John V. Shoemaker, who says in his *Treatise on Materia Medica and Therapeutics* in reference to a well-recognized intestinal antiseptic: "Betanaphthol is administered chiefly as a means of securing antiseptics. Being almost insoluble, it is one of the best agents at our command for disinfection of the alimentary tract. In typhoid fever it mitigates the severity of the disease and reduces the rate of mortality. These results, announced by Professor Buchard, have been amply confirmed by the writer and numerous observers."

During the last year I have treated cases of undoubted typhoid fever of average severity; in each instance some effort was made at intestinal antiseptics. By this I do not mean that the typhoid bacilli were absolutely destroyed by a germicidal action of the remedies used, but that some noticeable beneficial effects were produced I feel certain. It is entirely possible to render the foul and offensive typhoid stools free from putrefactive odours, and the tympanites, ordinarily a distressing symptom, may be eliminated.

It may be futile to address antiseptic remedies to the bacillus of Eberth, but remedies properly selected will strengthen the wall of the bowel and prevent sloughing up

of the intestinal lesions. In addition, they will ameliorate the profound symptoms of septicemia, and, as a consequence, the attack is shortened and rendered far less dangerous.

A measure to be used in connection with this antiseptic treatment of typhoid fever is thermol. While this new remedy is not an intestinal antiseptic in the same sense as zinc sulphocarbolate, or thymol, but rather belonging to the class of antipyretics and analgesics, yet its use will inhibit the cultures of the germ of the disease in the body of a patient suffering from typhoid toxemia. In this manner excessive tissue waste and combustion are prevented. Elimination from the excretory organs is promoted, the activity of the skin and glandular system is increased, and thus the patient is enabled to dispose of the poisonous products during the career of the fever instead of during convalescence.

Flint says in regard to the treatment of typhoid fever: "Of all therapeutic measures, those directed toward the reduction of the fever take the first rank." Accepting this dictum, even though we do not consider a moderate elevation of temperature dangerous, *per se*, we have in thermol a remedial agent much more convenient of administration than the cold bath treatment, and one which will not only reduce the high temperature with greater apparent safety, but will lessen the symptoms denoting severity of infection, such as stupor and other ataxic disturbances.

In proper doses thermol may be used continuously from the very inception of typhoid fever until convalescence is completely established without any unfavourable influence upon the circulatory system or other vital organs. In a disease of an asthenic character, such as pneumonia, influenza, malaria and typhoid, I know that it is positively non-toxic and cumulative in reasonable dosage. In a disease like typhoid fever, a disease in which depression must be studiously avoided, the main question to settle in the use of this drug is its absolute and universal safety, because after only a superficial trial, the valuable properties which make it an effective and gratifying remedy are so apparent that the least observant physician would be cognizant of the happy effects.

The angry protests and pitiful entreaties of patient and friends, the shivering and chattering teeth, the gasping respiration, the dread and the multitude of annoyances to the patient, nurse, physician and family, occasioned by the cold bath process, are avoided, and still the patient

experienced all the comforts to be derived from that system, and finally he did not linger on and on as not infrequently happens with hydrotherapy.

Experience has demonstrated that thermol should be administered to an adult typhoid patient in doses of approximately 2½ grains every two hours throughout the whole duration of the disease, irrespective of the records on the temperature chart or the thermometric reading.

I feel justified in claiming that there is evidence to support the belief that the rational use of thermol will rob typhoid fever of many of its terrors and dangers, that thus used it will beyond a doubt to some extent shorten the duration of the disease, and lessen greatly the tendency to relapse, that it will certainly be productive of much physical and mental comfort to the patient in reducing the fever, and at the same time cause the skin and mucous membranes, including the tongue, to be moist, that the respiratory, circulatory, intestinal, nervous and all other special symptoms will be reduced to a minimum.

Progress of Medical Science.

MEDICINE AND NEUROLOGY

IN CHARGE OF

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SLEEPLESSNESS IN HEART DISEASE AND ITS TREATMENT.

Gibbes states, in the *Chemical Journal* of January 16, 1901, that in all cases of heart disease our first treatment should be directed to relieving, if possible, the most urgent symptoms. Sleeplessness, if it is present to any great extent, must always be a serious symptom, and is bound to make itself felt in all cases, being in some a matter of vital importance.

We have, therefore, to decide when hypnotics are required, and what character of drug should be given. The ill effect produced from the persistent and unregulated use of sleeping draughts by the general public cannot be too strongly condemned, and it enforces

upon us the necessity of using the greatest caution in prescribing them. They should be used either to break the habit of sleeplessness, which the system may have acquired, or to give rest when it is urgently needed. In the former instance, the influence should be kept up for three or four nights, or a speedy relapse will follow. In many cases we obtain far better results by giving three or four smaller doses during the day than from a larger amount given in one dose at night ; this specially applies to opium, chlortone and bromide. Our choice of drugs must always depend on the character of the case and the complications that are present. To describe the various hypnotics that have been recommended would be waste of time ; therefore, only those drugs are given which the author has used and found most successful.

Opium and morphine are among our most reliable sleep producers, and when pain is present are invaluable ; they can be safely given in any uncomplicated form of heart disease, and the presence of lung and kidney complication is by no means such a rigid bar to their administration as some would lead us to suppose. Greater care is, of course, required under these circumstances, and their effects must be carefully watched, but they have been frequently used by Dr. Gibbes with the greatest benefit when the lungs have been clogged and a large quantity of albumen present, after having failed to obtain sleep by any other means. If pain is very severe, and immediate results are required, morphine should be given hypodermically, care being taken in extreme cases to minimize the shock of inserting the needle as much as possible. While opium and morphine can always be relied on to relieve pain, they do not necessarily act as hypnotics, unless the dose is larger than we may wish to give for the writer frequently finds their action delayed, the patient not getting to sleep for hours and sleeping better the second night than the first. Sometimes he can obtain a much better hypnotic result by giving a quarter or half grain dose of opium three or four times during the day than two or three grains at night ; in other cases one-sixth of a grain of opium every hour for five or six doses during the latter part of the day will produce a more satisfactory result.

Chloral hydrate should only be given when the arterial tension is high, and its depressant action on the heart is beneficial, as is sometimes the case in acute alcoholism. He has not, however, derived any special advantages from its use in other conditions to compensate for its depressing effects.

Chloraldehyde acts in the same manner as chloral, but has the advantage of being less of a depressant. It has been strongly recommended, but Gibbes has not found its action as speedy as some other hypnotics.

Trional is very useful, and acts speedily. It has no special action on the circulation or respiration, and can, consequently, be given in any form of heart disease, but he has not found it satisfactory when pain is present. Sulphonal acts in the same manner as trional, but as a hypnotic its delayed action is much against it. The combination of the two in 10 or 15 grain doses each has a more satisfactory effect than if they are given separately. If much prostration is present, as is sometimes seen after influenza, it is advisable to avoid their use.

Paraldehyde is a very useful hypnotic. It has no effect on the circulation or respiration, and can be given in any form of heart disease. As, however, it has a slight irritant effect on the gastric mucous membrane, it is not always advisable to administer it when the cardiac sleeplessness is complicated by dyspeptic troubles.

Chlorelone is one of the most recent additions to our list of hypnotics, and is very useful in heart disease. It has no depressant action on the circulation, can safely be given when kidney or lung complications are present, and is quick in its action; its special usefulness, however, in heart disease is due to the fact that it is not only a perfectly safe hypnotic, but a powerful germicide and anaesthetic as well, relieving the dyspeptic symptoms so commonly present by anaesthetizing the coats of the stomach and arresting fermentation. It is a perfectly safe hypnotic, a case having been recorded in which 120 grains were given in 24 hours without serious result. As a hypnotic, Dr. Gibbes generally gives 15 grains at bedtime, and repeats in two hours if required; when there is much excitation of the nervous system 1 1-2 or 2 grains three times a day with a 15 grain dose at night has an even more than beneficial effect, and produces sleep the second night without any further dose being given. The bromide salts are chiefly indicated where the neurotic element predominates, and if given three or four times a day will often relieve sleeplessness, but the writer has frequently found them fail when any one of them is given as a pure hypnotic in one dose at night.

Alcohol will in many instances promote sleep before heart failure has far advanced, and where restlessness is great; it should, however, only be given in small doses just as the patient is settling down to sleep. If the ar-

terial tension is high it is worse than useless, as it may increase the sleeplessness. In the later stages it may have a soothing, but not a hypnotic, effect (*Therapeutic Gazette*, May 15, 1901).

In prescribing morphia and opium in cases of heart disease, complicated by the presence of albumen in the urine, I have noticed in several patients that the administration of morphia or opium by the mouth has set up alarming symptoms. One patient, I remember, went into a convulsive state by giving 1-4 grain morphia sulph. in tablet by the mouth, and another into a comatose condition from 15 drops of liq. opii sedative; to both of these patients I have given 1-4 grains morphia sulphate hypodermically since. I now always use this drug hypodermically in these cases with no untoward effects. Chloral hydrate is best dispensed with syrup of licorice. As it sometimes has an irritant effect on the gastric mucosa, it is contra-indicated in neurotic cases except in small doses combined with bromides.

Trional and sulphonal should be dispensed in konseals, in 20 to 30 grain doses, followed by hot drink. Paraldehyde dose, 30 to 60 minims soluble 1-10 water, best prescribed with glycerine or syrup of orange. Chloretone best prescribed in konseals, 20 grains, or in pills, 3 grains, very reliable. Like chloral, trional and paraldehyde are of little use if there is much pain. Bromides are best prescribed in 30 grain doses, combined with syrup of orange or fluid extract of glycyrrhiza and syrup.—*Can. Jour. of Med. and Surg.*

A CONTRIBUTION TO THE TECHNIC OF THE WIDAL TEST.

By Dr. A. Robin. (*Jour. Appl. Mic.*, p. 1434, August, 1901).

Four problems present themselves to the bacteriologist who attempts to perform the Widal test in the diagnosis of typhoid fever, viz.: 1. The dilution. 2. The best way of obtaining a motile culture free from "natural" clumps. 3. The differentiation between a true and a pseudo-reaction. 4. The time limit.

To these problems Dr. Robin offers solutions which, in his experience, have proved most practical and satisfactory.

1. Accurate dilutions are obtained by means of the simple medicine dropper device described in Vol. III., No. 8, p. 962 of the *Journal*.

2. Motile organism may be readily obtained for the test by keeping at hand pure cultures of typhoid bacilli in

hermatically sealed tubes. When a test is to be made, a fresh agar or bouillon culture is made from the stock culture and kept in the incubator for eighteen to twenty-four hours. It was found that the temperature of a fairly warmed room produced just as good, if not better results than the incubator. The author deems the bouillon culture unsatisfactory, and has adopted the following medium. An agar culture is kept in the incubator or at room temperature for twelve to eighteen hours, when two or three loopfuls are transferred into bouillon until a marked turbidity results, or a small quantity of bouillon is added to the agar culture and enough of the growth scraped off to produce a uniform cloudiness. The latter course is preferable, and if carefully followed, the "natural" clumps, so frequently observed in bouillon cultures, are entirely avoided.

3. The third problem is met by using a slide with two concavities, around the edges of each of which is a ring of vaseline. On each of two clean cover-glasses is deposited a loopful of the culture; to one a loopful of the blood, diluted 1 : 20 to 1 : 40, is added, while the other serves as a control. The behaviour of the bacilli on each cover may be readily observed. If the reaction is positive, the bacilli on the test cover will gather in clumps of two, three or a dozen and will soon lose their motility, while in the pseudo-reaction only a few clumps will form, the rest of the bacilli remaining separated.

The time given to determine whether a reaction is positive or negative varies greatly with different bacteriologists. Dr. Robin proposes the adoption of a uniform limit and offers the following : Dilution 1 : 10, time limit, 5 to 15 minutes ; 1 : 20, 15 to 20 minutes ; 1 : 40 to 1 : 100, 30 to 60 minutes ; 1 : 100 to 1 : 200, 1 to 2 hours. That is, if within the specified time, a considerable number of the bacilli are found actively motile, or, if dead, fail to arrange themselves in clumps, the reaction is negative, irrespective of the clumps which have already formed.—*Dr. A. Robin, Jour. Appl. Mic.*

RELATIONS BETWEEN TUBERCULOSIS AND CARDIAC DISEASE.

The association of pulmonary tubercle and heart disease is a question which has attracted attention at various times and has been stated in very different ways. The idea was formerly held, and is so still to a certain extent, that there is an antagonism between the two conditions. Potain has quite recently considered the matter in a clini-

cal lecture, and shows that not only may valvular disease of the heart and tubercle of the lungs co-exist, but there is even a relation between certainly some forms of heart disease and tubercle. First, pulmonary stenosis, be it due to a primitive lesion of that vessel or from some cause of compression, seems to render the lungs very susceptible to tubercle. Secondly, mitral stenosis is not infrequently associated with tubercle, **as very many patients, the subjects** of that disease, show signs of the latter, and the author looks upon this combination as by far the most frequent, although he states that various other diseases of the heart may also be combined. In cases where pulmonary tubercle is pre-existent the heart may show disease in the three following forms: Tubercle may invade the myocardium itself, or, what is very rare, the endocardium; secondly, it may determine an ulcerative or infective endocarditis, due apparently to a secondary infection of the tuberculous areas by putrefactive organisms, as pneumococci and streptococci are certainly present, not tubercle bacillus; in the third form, according to Potain the most frequent, the form of heart disease is a sclerosing endocarditis. As a matter of fact, it is quite common to see small white spots on the endocardium of phthisical patients. This is the earliest manifestation of a fibrous transformation which may result in a mitral stenosis of the valve, and, according to Potain, a pure form of stenosis is produced, as no retraction of the cusps seems to take place, and thus there is no incompetence. This is contrary to what is met with as the result of rheumatism, in which there is a thickening of the tissues as far as the base of the valves, and thus more or less retraction is caused, resulting in mitral incompetence. Although Potain argues for a casual relation between tubercle and pure mitral stenosis, he distinctly states that valvular disease is not met with in the more rapid forms of phthisis. It is rather the fibrosing varieties that are accompanied by sclerotic disease generally, a sclerosis which is not confined to the endocardium, as even the arterioles, liver and kidney may be affected. Another point is that the subjects of this condition may be arthritic either in a hereditary or acquired form. It would seem that mitral stenosis is not infrequently overlooked in the presence of pulmonary disease, but careful attention to auscultation of the first sound with the presystolic *roulement*, together with duplication of the second, ought to demonstrate its presence. At the same time the auscultatory signs are very variable, and it may be necessary to examine several times. The course and prognosis vary. In some cases the condition of the patient

seems to be stationary. In other cases it is progressive, and the patient becomes a case of heart disease and ceases to be one of tubercle, and the progression of cardiac lesion, at times, would appear to cause arrest of the tuberculous. Generally speaking, it would seem that the pulmonary lesion becomes quiescent. From this it may be gathered that the cardiac disease is the one which calls for treatment, and although the sclerotic process seems to exert a beneficial influence on the lungs, it requires to be kept within bounds by using preparations of iodine and arsenic, together with strict attention to hygienic and general conditions.—*Journ. de Med.*

**COLLECTIVE INVESTIGATION OF THE INFLUENCE OF
THE SILVER NITRATE INJECTIONS ON PHTHISIS.**

In 1892 the undersigned began a collective investigation of the action of cold in the treatment of acute pneumonia, and there is reason for believing that this procedure, which resulted in gathering four hundred cases of this disease thus treated, with a death-rate not quite five per cent., was an important factor in calling attention to the utility of that treatment and in introducing it to the profession of this country. That research was based on the conviction that no remedy can be called truly successful until it has passed the exacting crucible of clinical experience, and it is now proposed to apply the same ordeal to the silver-injection treatment of phthisis, which, in a large hospital, dispensary and private practice, reaching over a period of three years, and during which many thousand injections were administered, has given me greater satisfaction than any other method that I have ever employed. In keeping with the above expressed feeling, a cordial invitation is herewith extended to those members of the profession who have the inclination and opportunity to investigate this method of treating phthisis, and to whom a reprint on the subject, with full information and blanks to report cases, will be cheerfully sent on application.

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SURGERY.

IN CHARGE OF

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TREATMENT OF ACCIDENTS UNDER CHLOROFORM.

The treatment of accidents under chloroform is a question full of interest to most medical men and one, too, on which all who undertake to administer the drug should have formed some definite opinion. In the recent numbers of the *Manchester Medical Chronicle* Mr. Wilson, administrator of anaesthetics, Royal Infirmary, Manchester, endeavours to classify the different accidents which are likely to occur, and to consider the mode of action and range of utility of the various remedies which have been suggested. The three classes which he adopts are shortly :—1. Irregular and uncontrolled action of muscles during the stage of excitement. 2. Paralysis or loss of tone of muscles altering the potency of the respiratory passages and so causing mechanical obstruction to the breathing. 3. Specific paralysing action of the drug on the fundamental nerve centres in the medulla. It is obvious that few cases of danger can be allocated to any one of these classes, for even presuming that the danger arises at first from the irregular action of certain muscles interfering with respiration, still what makes this really serious is the danger of the sudden onset of the specific paralysing action of the drug on the medullary centres. It is probable that any classification of accidents would be open to similar objections, but if it enables the administrator to grasp more clearly the general principles of danger it must be considered to have answered a useful purpose. The indications for treating these accidents are three-fold—to remove the anaesthetic-laden air from the lungs, to encourage the flow of blood to the nerve centres, and to stimulate the circulation and respiration. The various methods which are used to attain these ends Mr. Wilson groups into five classes—1. External reflex respiratory stimulants ; 2. Direct mechanical or electrical stimulation of the heart ; 3. The mechanical performance of natural functions such as artificial respiration ; 4. Mechanical measures designed to counteract the effects of the failure of the circulation by raising the general

blood pressure ; 5. Drugs administered to stimulate the depressed nerve centres. Of the first group, the best that can be said is that they do no harm unless persevered in to the detriment of more important measures, and of the second, that they are either impracticable or positively harmful. Faradic stimulation of the precordial area, if any of the current reaches the heart, probably inhibits its action. Acupuncture of the heart is equally useless, and direct manipulation of the heart after opening the heart-chest is a remedy which requires more evidence of its utility before it can be recommended. Mr. Wilson believes that as good, if not better, results, can be obtained by intermittent pressure on the chest wall, accompanied by alternately raising and lowering the patient so as to empty and fill the heart. The difficult question has first to be decided whether the circulatory failure is the result of paralytic dilatation of the heart, or of paralysis of the vaso-motor mechanism. The methods of treatment suitable for each of these cases are absolutely antagonistic, and it is by no means easy to say which is the cause in any given case. It would appear that sudden failure of the circulation, accompanied by pallor of the face and accelerated or gasping respirations denotes vaso-motor paralysis and requires inversion of the patient with pressure on the abdomen. On the other hand, if the dangerous symptoms are preceded by struggling, and the face is suffused with signs of venous engorgement, the patient should be alternately raised to nearly the vertical position in order to empty the heart, and then returned to the horizontal position. Artificial respiration should be systematically persevered in each case. If there is actual failure of the circulation little that is useful can be done by efforts to raise the blood pressure by such means as transfusion, etc. The same objection also applies to the use of drugs. Where there is failure of the respiration or circulation, the difficulty is to get the drug to the nerve centre which it is to stimulate. In those cases in which this can be effected, hypodermic injections of strychnia and the extract of suprarenal capsule, with inhalation of ether, are probably the most useful.—*Editorial in Med. Press.*

SURGICAL INTERFERENCE IN APPENDICITIS.

The question of the surgical interference in cases of appendicitis is one which as yet can hardly be said to be satisfactorily settled either from the point of view of the physician or the surgeon. In the August number of the *Edinburgh Medical Journal*, Mr. Walter Spencer helps

materially towards its solution. Mr. Spencer classifies these cases clinically as follows: (1) Caecal distension. In these cases the treatment is purely medical and the prognosis good. (2) Perityphlitis. This may yield to medical treatment, but if it produces adhesions they may necessitate surgical interference later. (3) Appendicitis proper, of which there are four varieties. (a) Acute perforation in which early operation affords the only chance of success. (b) Suppurative appendicitis in which extra-peritoneal draining of the abscess should be done as early as the diagnosis can be made. (c) Relapsing and recurring appendicitis, which must be distinguished by careful examination after the attack, and if the signs of chronic appendicitis are found the appendix must be removed at once. (d) Chronic latent appendicitis with septic anaemia is the most difficult of all varieties to diagnose, and there is great danger that it will not be recognised till too late for useful surgical interference.—*Ed. Medical Press.*

SUGAR-FREE MILK AS A FOOD FOR DIABETICS.

Robert Hutchison, in *The Lancet* of June 22, 1901, says a difficulty in practice is in providing a patient suffering from diabetes with a diet free from carbohydrates and which can be taken for a long time. The nutritive constituents must consist largely of proteid and fat, but when carbohydrates are taken out of the diet it is difficult to replace them by sufficient fat. Fat in the form of bacon is palatable, and more or less fat can be added to meat and fish. Butter is difficult to administer, except when taken, as is commonly the case, with carbohydrates. This difficulty in the ingestion of fats is met by separating the sugar from milk, thus furnishing a food rich in proteid and fat, but without a carbohydrate. Mr. Morris, chief dispenser to the London Hospitals, has prepared a very perfect milk in which sugar has been removed, which resembles a rich specimen of ordinary milk. It can be administered plain, or with some effervescing water, or added to tea, coffee, or cocoa. With eggs it can be made into a custard, thus adding a palatable and agreeable food to the limited range permitted the diabetic. Sugar-free milk contains approximately three per cent. of proteid and five per cent. of fat: if three pints are taken in a day the food value amounts to 990 calories, or nearly one-third of the total amount required, while the amount of fat which the patient obtains is equivalent to fully three ounces of butter.

In cases in which a small amount of carbohydrate is desirable, it is sometimes best to substitute sugar-free milk, and give carbohydrates in the form of potatoes or bread, as this enables the patient to ingest a larger amount of fat.— *Medicine*.

INDICATIONS FOR AND AGAINST TOTAL REMOVAL OF THE STOMACH.

G. C. Macdonald, San Francisco, thinks that few cases of cancer of the stomach permit the radical operation. Unless in patients of extreme vitality, he would limit the operation to the age of 55 in men and 60 in women. Leucocytosis is not present in uncomplicated gastric cancer, and, if found, tends to show either that the metasis has already commenced, or that some other complication exists. A high percentage of white cells is unfavourable to surgical interference. The absolute integrity of the heart must be assured, and most cardiac and circulatory lesions absolutely preclude operation. Other things being equal, working men and women furnish a more favourable prognosis than those of sedentary habits. We must be sure that there is a gastric cancer. The most favourable indications are a moderately dilated viscus with a freely movable tumour situated to the right of the median line. A contracted or very dilated stomach, with a fixed or non-palpable tumour, or one located on a line from the epigastrium to the left anterior superior spine of the ilium are unfavourable. If the disease has existed 12 to 14 months, it will be hardly suitable for operation. The preparation of the patient should include absolute rest in bed for 4 to 6 days or more, lavage of the stomach with antiseptics daily, and administration of podophyllin resin and calomel to stimulate the liver and bowels.— *Am. Med.*

HOME MADE SPLINTS.

Dissolve one pint of gum shellac in one pint and a half of ninety-five per cent. alcohol, with one drachm borax. Let the mixture stand until all of the shellac has been dissolved; then it is ready to be applied. Old cloth makes the best splints. I generally use an old pair of trousers. Apply the solution to one side of the woolen cloth with a brush and dry thoroughly before a hot fire. It takes about one hour to dry properly. Then apply a second coat on the same side and dry as before. You will then have a single piece, but if you wish a stronger piece, apply the solution on one side of two pieces that have

already been prepared, dry them, place them together and press with a hot iron, and they will unite and become as one piece. Always be sure to dry out all of the alcohol. To temper the cloth for use hold before a hot fire until soft, then apply. It will adapt itself to the shape of the limb at once. To make it set quickly hold in cold atmosphere or dip in cold water.—*Red Cross Notes.*

REMARKS ON SPINAL SURGERY, WITH ILLUSTRATIVE CASES.

By Dr. Andrew J. McCosh.—The author's conclusions are : (1) The risk of the operation of laminectomy is slight ; (2) early operation is of the greatest importance ; operate before the onset of degenerative changes ; (3) in tumour cases do not waste time with antisyphilitic treatment ; (4) operate rapidly ; employ but few artery forceps or ligatures ; (5) support of the spinal column after operation is generally unnecessary.—*J. A. M. A. and N. Y. Med. Jour.*

IMPORTANT POINTS TO BE BORNE IN MIND IN THE SURGICAL TREATMENT OF HERNIA.

Abstract of paper read by Dr. A. J. Ochsner, M.D., of Chicago, before the Austin Flint Medical Society, at Clear Lake, Iowa, July 17, 1901.

The permanent success following herniotomy depends upon a comparatively small number of practical points which must be observed in order to secure satisfactory results regularly.

1. The wound must heal primarily because suppuration results in an abundance of cicatricial tissue, and this is most unstable.

2. The stitches must not be drawn tightly in order to avoid pressure necrosis.

3. The edges of the wound to be united must be free from fat and other unstable tissues.

4. The wound should be supported by broad rubber adhesive plaster strips until healed.

5. The patient should be kept in bed two or three weeks.

6. After the operation abnormal intra-abdominal pressure should be eliminated by avoiding constipation, etc.

- I. In Inguinal Hernia. (1) The entire sac should be removed.

(2) It is especially important to remove all the loose tissue between the transversalis and internal oblique muscles on one side and Poupart's ligament on the other.

(3) The upper portion of this canal should be closed with especial care.

(4) In case of a long thin omentum this should be resected.

II. In Femoral Hernia the canal through which the sac protrudes is a perfect ring, and, consequently, if the entire sac is removed this ring will invariably close and there can be no recurrence. All meddlesome operations contemplating the closure of this ring cause a certain percentage of recurrences.

III. In Ventral Hernia following laparotomy.

The original layers should be laid bare and then the corresponding layers should be carefully united. The author prefers deep silk wormgut stay sutures to be tied after each layer has been united separately with chromicized catgut sutures.

IV. In Umbilical Hernia the ingenious operation first described by Dr. W. J. Mayo, of Rochester, consisting of an overlapping of the edges of the hernial ring from above downward or from side to side for a distance of one and one-half inches has given complete satisfaction.—*Iowa Medical Journal*.

CHRONIC SEMINAL VESICULITIS.

Arthur L. Clute and Richard F. O'Neil, in the *Boston Medical and Surgical Journal* of June 13, 1901, publish their individual observations upon this disease, which is much neglected, notwithstanding Fuller's excellent study. Their general work in a large dispensary leads them to think that this condition is more common than is generally supposed. That they have seen this complication with unusual frequency may be due to the fact that they have an unusually large number of chronic and intractable cases of gonorrhea coming to their clinic. No systematic study was made of all the cases in reference to involvement of the vesicles, but only those which presented symptoms that pointed with some probability to involvement of the posterior urethra and prostate.

The symptoms of vesiculitis are divided into those that are direct and reflex, though combinations of the two are frequent. In the long-standing cases reflex symptoms are most characteristic. Among the direct symptoms are vague feelings of discomfort in the rectum and perineum, pain on

defecation, persistence of discharge of shreds in patients in whom stricture can be ruled out; particularly suggestive is the presence of small, comma-shaped shreds from the prostatic urethra. Another common symptom is the starting up, without any indiscretion on the part of the patient, of a urethral discharge which had nearly or quite stopped. The reflex symptoms commonly include those which are spoken of as sexual neurasthenia, suprapubic pain, pain in the back or in the head, and tender points along the urethra. Pain along the spermatic cord may occur, and when the disease involves but one vesicle the pain is upon the corresponding side. Irregularities in the sexual functions combined with these neurasthenic symptoms are very frequently associated with vesiculitis.

In investigating the condition of the vesicles the rectum should be emptied and the bladder moderately distended. The patient should stand with the feet apart, bent well forward over a chair, the legs being straight at the knee. The digital examination is helped by the examiner making suprapubic pressure with the hand or with the closed fist, forcing the pelvic viscera downward and rendering the vesicles more accessible. Sometimes the vesicles can be felt enlarged and tender; more frequently only a diffused enlargement of the prostate, associated with inflammatory exudate along the base of the bladder. Most commonly there is an involvement of the vesicle unilaterally. The prostate is commonly tender, sometimes greatly enlarged, and occasionally has the conventional heart-shape with the base below. This is probably due to the exudate over the ducts, which fuses the structures together and makes it impossible to sharply define the upper border. The upper boundary of the prostate may have a boggy feel, which pits upon pressure. One characteristic symptom is the material obtained by stripping the rectum. The urine voided after massage of the base of the bladder is commonly turbid, containing cheese-like masses made up of epithelial and pus cells.

In the treatment of this condition the best results have been obtained from massage, which in every case has included the prostate, as it is impossible to massage the vesicles alone. In carrying out the procedure the patient is placed in the same position as during the examination. When the vesicles are very tender the time of massage is short; the treatment should be repeated at intervals of from five days to a week. In cases where the bladder cannot be evacuated shortly after

the massage it should be washed out, otherwise mild cystitis may be set up. Commonly, the massage is followed by improvement objectively as well as subjectively; the hard and indurated prostates become softer, and those that are large and sodden shrink to more normal proportions. The treatment, as a rule, gives better results in young patients, and most cases of vesiculitis can be greatly benefited by careful treatment. In the majority the subjective symptoms can be made to disappear for a considerable time. In older patients the occasional use of massage will give them great comfort. The writers believe that a certain number of cases of impotence and sterility may be due to a vesiculitis, and they advise the prostatic examination of all patients with urethral disease of recent or long standing which is not progressing favourably, particularly in those cases showing the so-called neurasthenic symptoms.—*Medicine.*

THE TREATMENT OF CYSTITIS.

The management of a patient with acute inflammation of the bladder is usually simple enough, and in uncomplicated cases recovery is prompt; but when the disease becomes chronic we often have a condition which taxes our patience severely. The treatment of those forms of cystitis which are caused by calculus, gonorrhoea, new growth, or stricture, must, of course, depend upon the removal of the cause, since the inflammation is distinctly secondary to such conditions, but these conditions are not responsible for the very large proportion of cases of cystitis in which the disease is of a tuberculous nature, and it is tuberculous cystitis which requires such long and patient treatment, both of local and general conditions, and which is so difficult to deal with satisfactorily by surgical means. Von Hofmann has recently (*Die Moderne Therapie der Cystitis*, 1901) contributed an interesting monograph on this subject, and he devotes much space to the treatment of tuberculous cystitis, which he considers the most important form of the disease. His main idea is that the disease should be considered general as well as local, and that very active systemic treatment should be instituted. In this regard, creosote and guaiacol, and their preparations, seem to be the best drugs, but the question of nutrition is also of great importance, just as it is in pulmonary tuberculosis. Surgery has been called upon in many cases of tuberculous cystitis, but the most that can usually be done is

to establish drainage, unless we should be so fortunate as to meet a case with a circumscribed ulcerative process, which could be treated by scraping or cauterization.

As is well known, the establishment of permanent drainage is, as a rule, followed by amelioration in the patient's condition, since, by it, the bladder is placed completely at rest; but when we want the fistula to close it will not always do so, and the results are very uncertain as to permanent benefit, no matter what treatment is employed in addition to the drainage. Von Hofmann recommends as useful preparations several salts of guaiacol, and specially notices the cinnamylate, and he also insists upon the importance of pushing the patient's nutrition as much as possible.

The local applications which will do good in cases of tuberculous cystitis are various solutions having germicidal qualities, and among other preparations may be mentioned several salts of silver and mercury. Patients will be found to differ in their tolerance of these preparations, and trial alone will show which is best and what strength individual cases will require. The most important reason for failure in treating this unpleasant disease is that the tuberculous process is rarely limited to the bladder, but commonly involves other parts of the genital tract, from which it is difficult or impossible to eradicate it. Our treatment of tuberculous cystitis must, therefore, remain much as it has been, systemic and local; the former consisting in pushing nutrition as much as possible and using some of the drugs which have been mentioned, and the latter consisting in the employment of those operative means which place the bladder at rest or eradicate any accessible foci of disease, and the use of appropriate local treatment by means of germicides and antiseptics. Many patients will improve under such a regimen, but the condition is one of the most unsatisfactory with which the surgeon is called upon to deal. We might add that Von Hofmann looks upon the development of cystitis in a patient with an enlarged prostate as a serious matter to be avoided by rigid observance of catheter precautions. If cystitis does occur in such cases he relies on nitrate-of-silver irrigation and the internal administration of a urinary antiseptic. Good results in genito-urinary surgery sometimes follow the substitution of an organic compound of silver for the nitrate.—*Editorial N. Y. Med. Jour.*

**THE TREATMENT OF GONORRHOEA WITH
ICHTHARGAN.**

DR. MORITZ FURST, of Hamburg, reports the results which he obtained with ichthargan in the treatment of gonorrheal urethritis. He employed it in 75 cases, both in dispensary and in private practice. He says that in spite of the superabundance of antigonorrheal remedies we have a perfect right to investigate any new compound if its chemical composition is of such a nature as to warrant the belief that it will prove effective in the treatment of that obstinate affection. That ichthargan—a combination of the well-tried and proven silver nitrate with the bactericidal, siccative, and anodyne ichthyol—is such a compound, theoretically at least, no one will deny. And practical results fully justify the *a priori* expectations.

Of the 75 cases treated by the author 25 were first cases, while 49 were suffering from the second, third, etc., attack of gonorrhœa. Of these 6 were cured in from 5 to 8 days, 24 in one to two weeks, twelve in three to four weeks, and 13 in more than four weeks. Of the last 13 cases the author considers four cases not cured because they still have a slight discharge, though free from gonococci. All the other cases were entirely cured.

The ordinary method of using the ichthargan was by means of injection. The patients were directed to use solutions of 1-3rd to 1 grain of ichthargan to 7 oz. of water. The stronger solutions were given in the beginning in acute cases with purulent discharge full of gonococci; the weak solutions were used toward the end as an astringent. The patients repeated the injections 4 to 5 times a day, after urination, and they were instructed to retain the solution for 5 to 10 minutes. In cases in which the posterior urethra was affected 6 to 10 drops of a 3 per cent. ichthargan solution were instilled by means of Guyon's urethral syringe.

The superiority of this solution over nitrate of silver was at once apparent, as the pain was much less, and the constant irritation and desire to urinate, which are produced by silver nitrate, were absent. The author also used ichthargan in the form of suppositories, made up with cacao butter, and containing from 3-4th to 1 ½ grains of ichthargan each. As a prophylactic after suspicious coitus the author advises the instillation of 3 to 4 drops of a 10 per cent. solution into the fossa navicularis. The author considers ich-

thargan, on the whole, a most excellent anti-gonorrhœal, greatly superior to protargol, with which he has also had extensive experience.

In conclusion, Dr. Furst calls attention to the fact that, taking into consideration the high percentage of silver in ichthargan—containing, as it does, 30 per cent. of silver, while protargol contains only 8 per cent.—and the potency of the drug, which makes even very weak solutions effective, it is the cheapest of the organic silver compounds used for anti-gonorrhœal purposes.—*Deut. Med. Wochensh*

PAGENSTECHER'S CELLULOID THREAD.

B. C. Stevens, in *The Lancet* of April 20, 1901, says that the introduction of this thread is a decided advance in operative surgery, especially in abdominal surgery. The smaller sizes form an ideal suture for the peritoneum; they do not slip, are easily threaded, and are very flexible. The tensile strength of the thread in proportion to its caliber is remarkable. The strength is, if anything, increased by the process of sterilization. A slight swelling of the thread occurs after boiling, but any water which it absorbs is readily removed by alcohol. Buried sutures of this material cause no irritation, though it is probable that they are not absorbed. The thick threads are useful in ligating the large blood-vessels or pedicles of tumours. Frequent boiling does not cause deterioration. It should supersede silk, as it is cheaper, more reliable, stronger, and lends itself to suturing much better. It should be sterilized by cutting into suitable lengths and winding on a glass reel. It is then removed and placed in a five-per-cent. solution of phenol or methylated spirit, which preserves it indefinitely.

TRIMANUAL METHOD OF PERCUSSION IN THE DIAGNOSIS OF FLUID WITHIN THE ABDOMEN.

J. G. Clark, in the *University of Pennsylvania Medical Bulletin* for May, 1901, refers to the difficulty of distinguishing between soft tumour masses and encapsulated fluid. A tense hydrosalpinx or pyosalpinx may also be easily mistaken for a solid tumour, or a distended gall-bladder for a tumour of the liver or kidneys. Similarly, a deep-seated collection of pus about the appendix may be mistaken for a tumour of the cæcum. For the detection of tumour in these

obscure cases he employs what he describes as a tri-manual method of percussion, which in many cases clears up an otherwise doubtful diagnosis. In bi-manual examination of a pelvic mass of questionable consistence the intestines intervening between the anterior abdominal wall and the tumour may dissipate the percussion impulse of the abdominal hand, and while fluid may be present a wave of sufficient intensity to be felt by the vaginal touch is not induced. To overcome this difficulty the tumour is confined as closely as possible between the two examining hands, while percussion is made by an assistant. A few little quick taps will, in this way, if fluid is present, give the sensation of a wave passing to the pelvic hand. In the same way an adherent and distended gall bladder may be easily outlined, one hand pressing deeply over the hypochondrium, while with the other deep counter-pressure is made just below the fixed ribs. If fluid is present light percussions over the upper hand will give an unmistakable wave.—*Medicine.*

DIAGNOSIS AND TREATMENT OF INTUSSUSCEPTION.

Charles P. B. Clubbe (*The British Med. Jour.*) speaks of the importance of an early diagnosis in these cases in children. During the last seven years, out of 49 children treated for this complication, 45 were operated upon, of whom 21 died. In the successful cases the delay between the onset of the trouble and the time of operation averaged only twenty-four hours, while in the fatal cases the average time was fifty-six hours. In the four cases not operated upon the intussusception was reduced by injections alone. This simple procedure is always useful and safe, and should be tried first, no matter in what stage the case is seen. From ten ounces to a pint of warm water and oil should be injected, the child being anaesthetized and the hips well elevated. After the fluid has escaped, if examination shows that the sausage-shaped tumour has vanished, the child should be put to bed and a minute dose of morphia given. Careful examination should be made every six hours for forty-eight hours to guard against a return of the trouble. Neglect of this precaution has led many to underestimate the value of this mode of treatment. Even if complete reduction is not accomplished by the injection, it often reduces the mass somewhat and renders subsequent operation easier. In cases, however, where the surroundings are such as to render an operation inadvisable, even if found necessary, no time should be wasted in preliminary injections at the home.

Diagnosis.—In a large number of cases there is a history of sudden screaming, pallor and vomiting, followed from two to ten hours later by the passage of blood and slime. In the interval between the first attack of pain and the bloody movement the child may have been comparatively quiet, or have had several short attacks of pain and crying. The pulse rate and temperature are not far from normal. With such a history careful examination of the abdomen is demanded, and where the muscles are held rigid a little chloroform should be given. Examination by rectum is rarely useful or necessary. In the early stage nothing can be learned in that way, and later on it is unnecessary, as the tumour can be felt through the abdomen. A word of warning as to cases where the intussusception has descended into the rectum or even out through the anus should be given. Such cases have been mistaken for prolapse of the bowel. Children suffering from diarrhoea may have this complication, and the passage of blood-stained movements may have occurred before the intussusception, leading to the intussusception, when it occurs, being mistaken for an exacerbation of the enteritis. Such cases result fatally, without any recognition of the true state of affairs.

In some cases these signs are all absent, and there is merely restlessness, distension of the bowel, vomiting now and then and possibly slight looseness of the bowels. After twenty-four hours, if the intussusception is at all severe, there will be grave symptoms of obstruction.

Before operation, strychnine and morphine should be given hypodermically. A large hot water bag should be placed on the table under the child. When the mass is small and in the ascending colon the incision may be made at the right of the rectus muscle, otherwise in the median line. The peritoneum in babies is so fine that it is well sometimes to hook an aneurism needle into the first small opening and pull the peritoneum forwards. When the mass is reached find out which is the lower part, then begin gently squeezing the intussusciptions. Just at the last an assistant may assist by gentle traction on the bowel—just above where it enters. The intussusception may sometimes be partly reduced while still in the abdomen, but the last part of the bowel that has to be uncoiled must always be brought into view. In cases that have been reduced easily there is sometimes thickening and a small cup-shaped depression at the site of the apex of the intussusception. This must be carefully pressed out and made convex, to prevent recurrence.

When the squeezing begins to cause much cracking and tearing of the peritoneal coating, this method of procedure will have to be abandoned for resection. So also in the ileo-caecal variety, where the appendix has been much pinched, or in cases where reduction is impossible, or where the bowel appears much damaged after reduction. End-to-end anastomosis with a continuous suture, of fine catgut, putting in a double row, is the best way of uniting the several ends of intestine. After washing the intestines with warm salt solution replace in the abdomen. No matter how great the difficulty of replacement, never be tempted to puncture the intestine. The abdomen is best closed by through and through sutures with no drainage.

Babies must be fed within a few hours after the operation. Mellin's food, whey and water (one drachm to two ounces), or the white of an egg in four ounces of cold boiled water, to which one drachm of somatose is added, may be given often in small quantities. After two days breast-fed babies may be nursed; others should be fed on carefully prepared foods. The child should be turned from side to side or carried about occasionally. Morphine in very small doses is usually needed during the first twenty-four hours. Strychnine and digitalin may be given hypodermically as indicated. If the bowels do not move in twenty-four hours a small dose of calomel may be given. The first movement usually occurs in twelve hours after operation and generally contains blood and mucus. The sutures should never be removed before the tenth day, and if they are giving no trouble they may be allowed to remain longer.—*Am. Gyn. and Obstet. Jour.*

THE CLINICAL ASPECTS OF ACUTE INTESTINAL OBSTRUCTION.

H. Lilienthal, New York, states that the causes which contribute most to the mortality of this affection are three in number: First, the shock incident to the strangulation of a vital organ. Secondly, there is sepsis from within the distended and congested gut even without the onset of peritonitis. Thirdly, the embarrassment of the functions of the lungs and heart by the distension itself, with consequent exhaustion of the vital forces in an already weakened individual. Either of the first two causes may be fatal without the existence of the third. The increasing frequency of abdominal section for the relief of other conditions has undoubtedly been the cause of an increase in the number of cases of ileus, and therefore all diligence

should be exercised to prevent this accident. The intestine should be handled little and with great gentleness, and drainage by irritating substances should be avoided if possible. The author is convinced that true ileus is often due to appendicitis ; in several cases he has found the appendix drawn over to the left side of the abdomen by adhesions to the small intestine, with kinking and complete obstruction. Various symptoms are dwelt upon, and emphasis laid upon the importance of not overlooking or misinterpreting the expulsion of flatus in administering an enema. Air introduced with the enema may be later expelled by the patient, and reported by the nurse as the passage of flatus. Fecal vomiting is such a late sign, and of such grave prognostic import, that to wait for it practically dooms the patient. The medical treatment of intestinal obstruction of the acute kind is safe until the diagnosis is made, but no longer. From his own experience in the operative treatment, the author submits the following ideas : The stomach should be washed out before operating, and, preferably, before beginning the administration of the anaesthetic. In the most desperate cases no general anaesthetic should be employed. A small incision should first be made in the right iliac region, and if it is at once obvious that the key to the difficulty is situated here, the wound should be enlarged and the operation proceeded with ; if the exploration proves negative, a long median incision should immediately be made. If a strangulation exists, the patient must not leave the table until it has been relieved. The possibility of the existence of more than one obstruction must be ever present. Enterostomy or colostomy should be performed only when there is the greatest danger that the patient may die if the operation is prolonged ; the only exception to this would be in cases of acute ileus from chronic obstruction in the large intestine with enormous distension. In making an artificial anus, one must be certain that the opening is above the occlusion. Gangrenous intestine should be at once resected.—*N. Y. Med. Rec.*

SURGICAL TREATMENT OF SPINA BIFIDA.

L. Marshall, of Nottingham, calls attention to a treatment which he is using successfully. A baby a few months old was admitted into the Children's Hospital, Nottingham, with a large spina bifida in the lumbar region, Roughly, it may be described as about the size of a tangerine orange ; three-fourths of the skin was translucent and very tense. An incision, at first small, to permit the

slow escape of the fluid, was made in the middle line while the child lay on its face with the head low and the buttocks raised. When the sac was empty the inner lining on either side was dissected as far as the spine. Then this was turned inward and a Lembert suture applied as in suture of the bowel. Then sufficient of the external skin—much of which recovers itself after the removal of the fluid—was placed over the inner pad and secured by silkworm gut interrupted sutures. The dressing used was collodion and cyanide gauze, applied in successive thick layers. It should be stated that the opening into the canal admitted the tip of the index finger. In the after-treatment of the case the raised position of the buttocks should be maintained for the first week in most of the cases.—*Brit. Med. Jour.*

THE PRIMARY TREATMENT OF BURNS AND SCALDS.

When the president of this association asked me to read a paper on this subject I readily acquiesced, thinking it would be a very easy matter to deal with, and would entail no great amount of labour. The very simplicity of the subject, however, makes it very much more difficult to me to give you anything that you do not already know, but I hope that the discussion which will be participated in by those who have had large experience in treating burns will bring out many practical points which will be of real service to the members. In looking over the literature of this subject I have been impressed with the number of remedies recommended, each having advocates and each giving very satisfactory results, if you are to believe in every instance the favourable reports of admirers, and possibly discoverers. This is, I take it, an evidence that we have as yet no one drug which is universally accepted as a specific. We must, therefore, aim at formulating certain principles of treatment, the carrying out of which will probably be equally well done by more than one remedy. In the first place, we must remember that the constitutional condition requires active treatment, as well as the local injury. The general treatment will depend largely upon the extent of the burn. When our patient is suffering from severe shock our first duty will be to apply suitable remedies for that condition. Warmth is of the greatest importance, and the patient should be wrapped up in warm blankets, he should be put to bed as quickly as possible, without a pillow, and the foot of the bed should be raised six or eight inches. Free stimulation is also important; perhaps the most rapid stimulant is ether

injected subcutaneously in doses of from 20 to 30 minims. If, in injecting ether, the needle of the syringe be buried in the muscle, it will avoid the sloughing of the skin, which sometimes occurs after ether is used subcutaneously. This may be repeated every fifteen minutes if necessary, and brandy may be injected in the same quantity, still more frequently ; strychnine is also useful.

Stimulants should also be administered preferable in the form of a hot nutrient enema, containing half an ounce to two ounces of brandy with the yolk of an egg and an ounce of beef tea and milk. In severe shock an injection of hot normal saline solution into the rectum will be found of very great value. One or two pints may be given and repeated every two or three hours, until the pulse is of good volume. The advantage of this plan of giving salt solution over the transfusion into a vein is that the dilution of the blood does not occur so rapidly, and hence there is not the same trouble about dyspnoea. A very marked effect will be noticed in the pulse in a few hours after the injection.

When a nutrient enema has been administered it is well to wait an hour before using the saline solution. I think there can be no doubt that the shock is often to a large extent kept up by pain (which causes exhaustion of the nervous system) and it is therefore of importance to relieve this, if possible. An injection of morphine, preferable in combination with atropine, should, therefore, be given. If, after the patient recovers from the shock, symptoms of internal congestion or inflammation set in, the usual treatment for this condition will be necessary. During the stages of the sloughing and convalescence it will be necessary to support the patient's strength by a nutritious diet with plenty of milk and the use of stimulants and tonics. When the body is extensively but superficially burnt, the depression is removed and the pain relieved by placing the patient in a warm bath. Visceral complications are usually of a congestive type, and for these we must rely chiefly on stimulants. Frequent full doses of opium will be required to relieve the irritability of the nervous system.

Now, as to the local treatment. This will depend upon the degree, and we will adhere to the classic division into six degrees, as originally proposed by Dupuytren. The treatment may be considered under four heads, viz., the treatment of the first degree, that of the second, that of the third and fourth degrees, and, lastly, that of the fifth and sixth degrees.

In the first degree there is no breach of continuity, and, therefore, no danger of sepsis. Dusting the surface with any soft, simple powder relieves the pain by protecting the surface from contact with the air. Cold cream or glycerine or lead and opium lotion will also be found efficacious.

In the second degree, where blisters have formed, the cuticle should be washed antiseptically, and then the blisters punctured and the fluid allowed to escape, but the epidermis should not be removed. The opening in the blister should only be of sufficient size to allow the fluid to escape; otherwise, if made too large, the epidermis is apt to peel off, exposing the papillary layer of the skin and causing a great deal of pain and retarding the healing. The area may then be covered with some antiseptic ointment; eucalyptus ointment of the B. P. or boric acid ointment (half strength) will do very well. This should be covered over with cotton wool and left for three or four days, when the part will have quite recovered.

The third and fourth degrees: When there is partial or entire destruction of the whole thickness of the skin or of the deeper tissues, as in the remaining degrees of burn, the parts must be kept aseptic, because after recovery from shock and for the first week or two afterward the patient's greatest risks are connected with sepsis.

We must now consider the best method of securing asepsis—a very difficult problem on account of the readiness with which burnt parts absorb fluids, and especially carbolic acid. One should not use carbolic acid as a disinfectant in burns on account of the danger of poisoning. The most suitable substance is bichloride of mercury, which may be used in the strength of 1 in 1,000 without any danger of absorption. By using plenty of soap to the skin in conjunction with a sublimate solution of the strength of 1 in 1,000, rapid disinfection of the skin is effected. In burns the heat has to a certain extent disinfected the part, should there be no further soiling, and it is not necessary to use disinfectants as thoroughly as in preparing the skin for an operation. This is especially true when the burnt part has not been covered with clothes.

More care in the disinfection of the part will be necessary when covered with clothes. It may be necessary and advisable to administer a general anaesthetic—preferably ether—so as to thoroughly cleanse the part without increasing the shock; so that in bad cases the procedure will be as follows: Put the patient under an anaesthetic, soap

and wash the burnt area and the skin around, douche it over thoroughly with 1 in 1000 sublimate solution which is subsequently removed by douching with boiled water. The best dressing then is cyanide gauze wrung out of 1 in 6 or 8000 sublimate solution and over this salicylic wool.

This may be left for three or four days or even a week without changing, providing there be no evidence of sepsis as indicated by rise of temperature, etc. The great advantage of a dressing of this kind is that, while it keeps the part antiseptic, it also allows the discharge to dry on the surface. When the slough begins to separate and granulations are springing up, one of the antiseptic ointments will answer better than the cyanide dressings. Eucalyptus or the full strength boracic acid ointment does very well. When the slough has separated the wound must be treated as a healing ulcer. Lately, French authorities have recommended the use of picric acid as a dressing in burns where the cutis vera has not been entirely destroyed; it is claimed for it that it is more efficacious in allaying the intense pain (so often present) than the ordinary applications, while at the same time it possesses antiseptic properties. The vesicles are punctured and then a piece of lint soaked in a saturated solution of picric acid is applied, and over this a pad of salicylic wool is firmly bandaged. The effect of the acid is to coagulate the albuminous fluid oozing from the wound, and thus to form a protective layer over the exposed nerve endings of the skin. The application may be left undisturbed for two or three days and then soaked off with warm boric lotion and reapplied. In several cases in which this procedure has been used we have been very pleased with the result. I think, however, it is most useful in the milder degrees of burns.

Just a word in reference to certain applications commonly recommended. Carron oil, for example, is a dirty preparation, and responsible for a great deal of mortality after burns. The use of poultices, of water dressings and dusting with flour are equally bad. As far as possible, the wound should be treated aseptically. If the attempt at disinfection fails and the wound becomes septic, probably the best method of treatment is the continuous water bath. If the trunk be affected and the burn large and painful and accompanied by constitutional disturbances, the patient is placed in a bath of water at the temperature of 100° F. containing a small quantity of an antiseptic, such as Condy's Fluid or Sanitas, and changed every three or four hours. It is well to take the patient out of the bath at night and apply wet boric lint, covered

with a macintosh (previously rendered aseptic). This method should be continued until the sloughs have separated and the inflammation has subsided. Now antiseptic ointments applied as for healing ulcers should be substituted. Where the extremities are effected special baths for the part may be used. Where the slough is situated over a joint or a serous cavity, and there is danger of either being opened when the slough separates, very great care must be taken in the aseptic management of the case, lest the part become septic and acute suppuration of the articular or serous cavity supervene.

The fifth and sixth degree: The treatment of these has to be considered in regard to the extremities alone; if the burn be situated elsewhere the patient usually dies at once. Should, however, either of these degrees of burns be upon the skull or trunk, and the patient live, we must endeavour to keep the part aseptic and support the patient's strength and wait until the slough separates; then if no vital part be involved, the defect will be gradually filled in with granulations and eventually skin grafting will expedite a cure. In the case of extremities, however, when the tissues down to and including the bone are completely charred, or when only the fifth degree is reached, and the tissues are destroyed over a large area, the question of primary amputation arises. Where the limb is hopelessly destroyed there can be no question as to amputation, the only point to be considered is where and when the amputation should be performed. Generally, speaking, it is better to wait until the shock has passed off, for if we operate before this the shock is apt to be increased, bringing about a fatal result. If the part be roughly disinfected and wrapped up in an antiseptic dressing it is usually quite safe to wait twelve or twenty-four hours till the shock is partly recovered from, and then by employing all the measures calculated to minimize shock, amputation may be proceeded with. As regards the seat of amputation, it is not necessary to go far above the charred tissue; certainly not above the region of the erythema.

It might be well for me just to mention some other applications used in the treatment of burns. Tillman prefers aseptic dry powdered dressings to ointments or solutions. McInnis states that spirits of turpentine applied to a burn of either the first or second or third degree almost at once relieves the pain, while the burn heals. After wrapping a thin layer of absorbent cotton over the burn the cotton is saturated with turpentine and

covered with bandages. Being volatile, the turpentine evaporates, and it is, therefore, necessary to keep the cotton moistened with it. When there are large vesicles these are opened on the second or third day.

Acetanilid is also used. Ichthyol, in watery solutions, or in glycerine, or even in ointment form, and the iodine derivatives, such as iodol, aristol, euophen, iodoform, airol, are reliable measures; also thiol.

In cases where shreds of clothing have been burned into the skin, they should not be removed until the second dressing. Their immediate removal can only be accomplished by stripping away the flesh. While mentioning some of the many remedies useful in the treatment of burns I have tried to outline the treatment which I have seen most successful. Where we have to select some special remedy to be used by those laymen giving first aid in the case of burns, I think the best remedy we have is picric acid. I would advocate, therefore, the placing of a quantity of picric acid on every train and in every station, with printed directions that in the event of a burn or scald a solution be made in water and this applied to the part, and lint or absorbent cotton, if procurable, soaked with it and made to cover the part. Turpentine is also a very good remedy to be used by the laity. In using either of these substances the part is not rendered more difficult of being made aseptic, whereas in the oily preparations it is very difficult afterward to render the parts aseptic.—*H. A. Bruce, F. R. C. S., Eng., Toronto, in the Railway Surgeon, July, 1899.*

Therapeutic Notes.

VENEREAL WARTS.

Shoemaker recommends the following powder for small warts just back of the glans penis, and traced to the irritative action of the vaginal secretions on a surface weakened by too much venery, and insists upon continence for at least three months:—

R Hydrargyri chloridi mitis..... ʒss
 Acidi tannici..... gr. xx
 Bismuthi subnitratiss ʒss

M. Sig.: Use locally as a dusting powder.—*J. A. M. A.*

SORE NIPPLES.

The nipple should be cleaned with a little water, to which has been added a small amount of borax, then apply the following :—

R̄ Balsam of Peru.....
 Tr. of arnicaaa ʒss
 Ol. amygdal. dulcis.....
 Aqua calcis.....āā ʒss

M. Sig.: Shake well and apply to nipple with calmel's-hair brush.—*Med. Summary.*

TREATMENT OF DYSENTERY.

R. A. Mate has used the following formula successfully in South Africa after all other methods had failed :—

Mag. sulph..... drachms j
 Ac. sulph. dil..... minims x
 Quinin sulph.... grains i
 Hydrarg. perchlor..... gran 1-32
 Tinct. opii..... minims x
 Aq. menth.....ad ounces ½

Sig. Every three hours.

Irrigations of boric acid (a drachm to the pint) also give great relief.—*British Med. Journal.*

TREATMENT OF EPISTAXIS FROM ANY CAUSE.

Dr. P. Chevallier, as quoted in *St. Paul Med. Jour.*, recommends injections of gelatinized serum prepared as follows :—

R̄ Sodii chloridi ʒii
 Aq. destil..... Oii

M. To this solution add gelatin in proportion of 10 parts to the 100 and sterilize. This becomes solid when cooled, but can be warmed in a water bath when needed. As an astringent powder the following is recommended :—

R̄ Acidi borici.....
 Pulv. sacchari.....aa lxxv
 Antipyrini.....
 Acidi tannici.....aa gr. xv

M. Sig. : To be blown upon the bleeding surfaces.

If it is not then checked, packing the nostrils will have to be resorted to.—*J. A. A.*

CHRONIC ARTICULAR RHEUMATISM.

R. Liq. potassii arsenitis.....	ʒj.
Potassii iodidi.....	ʒiv.
Sodii salicylatis.....	ʒv.
Syrupi sarsap. comp.....	ʒiss.
Aq. menthæ pip.....	q. s. ad. ʒiv.

M. Sig.: One teaspoonful in half-glass of water after each meal. Or:—

R. Potassii iodidi	ʒij
Vini colchici sem.....	
Tinct. opii camph.....aa	ʒi
Tinct. stramonii.....	ʒiij
Tinct. cimicifugæ.....	q. s. ad ʒiv.

M. Sig.: One teaspoonful three times a day in water.
—*J. A. M. A.*

Jottings.

RESUSCITATION OF THE NEW-BORN.

(Mulhern, *Phys. and Surg.*, September, 1900).—No child that does not show positive evidence of decomposition should be pronounced dead until after persistent efforts at resuscitation have been made. Failure to detect the cardiac sounds or impulse, or absence of pulsation of the cord, are not sufficient excuse for not instituting such efforts. The chances of success is greater in asphyxia livida than in asphyxia pallida. The first thing to be done is to clean out the upper air passages. If the child fails to cry within two minutes, mouth to mouth insufflation should be practiced. It is not expected that air will reach the lungs by this means, but it is useful in cleaning out the nasal passages. If abundant rales point to the presence of fluid in the trachea or bronchi a catheter should be introduced. The child should be flagellated and immersed in hot and cold water. If this does not suffice some method of artificial respiration should be practiced. Hall's and Sylvester's methods are well known. The Schultze method consists in seizing the child just below the neck, the fingers resting on the dorsum and the thumbs on the thorax, the child facing in the same direction as the operator. The child should be held hanging downward and then swung at arm's length upward over the operator's

shoulder. This should be repeated eight times a minute. The Byrd-Dew method consists in extension and flexion of the infant's body. This may be done while the child is in a hot bath, and is preferable in asphyxia pallida. The Laborde method consists in rhythmic contraction of the tongue by the fingers. The number of tractions should be twenty-four per minute. The action results in a reflex irritation of the phrenic through the nerves of the tongue. The child should always be immersed in hot water to prevent chilling.

ON THE TREATMENT OF PRURITUS VALVAE.

(L. Siebourg, *Centralbl. f. Gyn.*, June 29, 1901.) First of all, those conditions which either are causative of this disease, or militate against the healing, are to be removed. An exact urinalysis is of great importance. The diet has to be regulated. Alcohol and highly seasoned food should be interdicted. Patients are to be left alone as little as possible, in order to prevent rubbing and scratching the vulva. The finger-nails should be kept short. The diseased parts are washed with soap and cold water at least twice a day, especially after the patient has urinated. The following ointment gave good, immediate and lasting results:—

R Cocaine.....	2.0 grammes
Orthoform.....	1.5 "
Menthol.....	0.5 "
Acid carbolic	1.0 "
Vaseline.....	20.0 "

If there are small excoriations, they should be cauterized with a ten per cent. solution of nitrate of silver. If the condition is chronic and the skin is not abraded, the following solution should be applied :

R Spirit. rusci.....	50.0 grammes
Acid. salicyl.....	0.5 "
Resorcin.....	1.0 "

After thorough cleansing apply with a soft brush.

Latterly the writer has found that the subcutaneous injections of about 300 cc. of normal salt solution gives good results. The injections had best be given in the evening. He explains their efficacy in this way :

"The injected fluid puffs up the skin, thus stretching the ends of the nerves, and produces a local anesthesia analogous to the anesthesia of Schleich's method."

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Editorial.

UNIVERSITY OF BISHOP'S COLLEGE.

FACULTY OF MEDICINE.

The thirty-first session of the above Faculty of Medicine was opened on Tuesday, the 1st of October, by an introductory lecture by Dr. F. W. Campbell, the Dean. The attendance of professors, lecturers, demonstrators, graduates and students was very large, every available space in the largest lecture room in the College being occupied. The Dean met with a very cordial reception. In opening his lecture, he extended to all a very cordial welcome. To those who had been in attendance for varying periods of one, two or three years, he gave cordial greetings, as to old friends. There was a time, he said, not many years ago, when the interval between the winter sessions was passed largely in the pursuit of pleasure and health. It may sometimes be necessary to pass it still in pursuit of health, but the search for pleasure must now be restricted to such holidays as would be claimed by you, were you in the active pursuit of the profession of your choice. Things had indeed changed. When Bishop's College Medical Faculty opened first its classes, it had eleven teachers. To-day it had a teaching staff numbering over forty. To those who, for first time, enrolled themselves that day as students of

Medicine, he gave cordial greetings, and then said : " At the very outset of your student career I would not wish to say one word which will dampen the ardour, which I feel sure prevades each breast. Yet, I feel my duty would not be performed, did I not ask each one of you if you have well considered the important step you are now taking. If you have, and it seems to me that your answer is in the affirmative, I welcome you to the work which though arduous, and entailing constant toil, has much about it which is pleasant and agreeable. Indeed, in after years when the cares and anxieties of practice surround you, you will often look back upon your student life as being one of the green spots, an ever to be remembered land mark in your existence." Dean Campbell then briefly dwelt upon the various primary branches which form the foundation of medical science, and passed on to give his opinion on the value and necessity of devoting a large amount of time to Hospital attendance. He said, " I know of nothing more likely to come to your assistance when you first commence practice, and lack that which can alone give you confidence—experience—than the hours which you have devoted to Hospital attendance. He concluded his address in the following words :—" Our knowledge of the causes producing disease has enormously increased. Thirty-one years ago, when this Faculty was formed, the subject of bacteriology was unknown. We knew nothing of the tubercle bacillus. Consumption was then an hereditary disease—we now know it to be infectious. Typhoid fever, we knew, was communicated through the dejecta, but the typhoid bacillus was unknown. Only a year or two ago this disease was still believed to be communicated by the discharge from the bowels. To-day we know that the typhoid bacillus disappears in a few weeks from the dejecta, while it is found in the urine for months.

" Sanitation has made great progress. This is proved by the last census of Great Britain, where the increase of nearly three millions and three-quarters in the population, in spite of a steadily declining birth rate, is very largely due to decrease in the death rate, i.e., extension of the average

period of human life. Use the opportunities which will soon be presented to you, so that when your period of training is over, and you leave these walls to begin the great battle with disease and death, you may be well armed and equipped for the contest. With moral principles strengthened by habits of industry and perseverance, with your intellect free from prejudice, clear seeing, well furnished with scientific and practical knowledge ; with your faculties disciplined for the work you have to perform, you will show yourself not unworthy of this University, or of that profession which is confined to no people and to no country, but whose object is the relief of evils common to the whole human family.

“ Do not, gentlemen, think that I have painted in too glowing colours the profession whose study you, this day, enter upon. Morally and intellectually I cannot over-rate it ; and now, when toil and exertion is required, I would cheer and encourage you, by reminding you of the very great intrinsic gratification which these studies may afford, and of the nobleness of the objects for which they prepare you.”

A late writer says “ it is the fashion to decri our profession, to call it a poor, a degraded profession.” If it be poor and degraded, is that the fault of the calling or of those who practice it ? Is the art of healing in itself less noble, because its practitioners, too often unsustained by a consciousness of their own dignity, have not raised it to the place in society which it ought to hold ? Poor it may be ! Slighted it may be ! but degraded it cannot, shall not be, so long as its foundation is science and its end the good of mankind.

THE FOLLY OF BOLTING FOOD.

A paper read before the British Medical Association furnishes some remarkable facts about the mastication of food. The author, an English practitioner in Venice, says that there exists a lost reflex action of the throat, whereby it refuses to swallow food unless well chewed and mixed with saliva. After five or six weeks of prolonged

and careful chewing of solids and prolonged insalivation of fluids, this reflex can be restored. The necessary condition of success is that both fluids and solids shall be dealt with in the mouth until they are reduced to a tasteless condition. The author says that by adopting his process indigestion is vanquished, the body becomes healthy, a far smaller quantity of food is required, and in one case corpulency was reduced to an extraordinary extent. If his views be accepted the treatment of many maladies will be simply revolutionized. With the modern man quick eating has become a necessity ; at any rate, in the breakfast and luncheon hours. The tendency is to bolt everything at those meals, and to eat far too quickly even when there is ample time at disposal. It is clear that prolonged mastication would render a dinner of many dishes impossible. It is equally clear that most of us eat far more than is needful to satisfy our bodily requirements. That there is something to be said on the side of the quick eaters, however, may be gathered from the fact that many of them pass long lives without being overtaken by the Nemesis of dyspepsia. Among many native tribes, moreover, and with a host of carnivorous animals, it is the rule to bolt food in rapid and wholesale fashion.

THE LATE DR. JOHN DUNCAN, OF VICTORIA, B.C.

Those who had the pleasure of Dr. Duncan's acquaintance must have grieved greatly at his tragic death, on board of the steamer "Islander," wrecked lately on its way from the Yukon to Victoria. A fellow passenger saved tells us that his death was tragic and heroic, and to the last was characteristic of the man. While others were fighting like beasts for their own escape, he stood like a brave man protecting the weak, and making no effort to save himself. He finally sank from sight while endeavouring to save a woman—wife of a friend, and her child. Dr. Duncan graduated from McGill in 1884, and at once went to Victoria, B.C., and began practice. When "C" Battery, Royal Canadian Artillery, was formed, and stationed in Victoria,

he was commissioned its surgeon, and remained such till it was disbanded about 1890. As a private practitioner he had gained a large practice and his patients and friends deeply mourn his loss.

THE RIO CHEMICAL COMPANY.

This company which has, since its establishment, had its headquarters at St. Louis, Mo., have transferred business to 56 Thomas Street, New York. The reason for removal is that the business of the Company has assumed such large proportions that they desire to be at a centre, which will enable them to have better facilities for procuring the ingredients which enter into the composition of the preparations they manufacture.

AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.

The dates originally decided upon for the meeting of this Association having been found to conflict with the meeting of the American Medical Association at Saratoga, the date has been changed to June 17th to 20th, 1902. Dr. Burgess, of the Verdun Hospital for the Insane, is Chairman of the committee of arrangements. The meeting takes place in Montreal.

Book Reviews.

Operative Surgery. By Joseph D. Bryant, M.D., Professor of the Principles and Practice of Surgery, University and Bellevue Hospital Medical College, etc., Volume II ; Operations on Mouth, Nose and Esophagus, the Viscera connected with the Peritoneum, the Thorax and Neck, Scrotum and Penis and Miscellaneous Operations. 739 pages ; 827 illustrations, of which 40 are coloured. D. Appleton & Co., New York, 1901.

The author has, in this volume of his work, sustained the high standard set in the first, and it is pleasing to see a new edition of an old and favourite author. Bryant's Surgery has been studied with profit for many years by both practitioners and students, but, until recently, a new and up-to-date edition was felt to be wanted,

and volume II. fully realizes our expectations. The work being so well known, no words of praise from the reviewer could be considered flattering, nor is praise necessary, yet the new two-volume edition of Bryant is as much better than the old as the modern safety bicycle is better than the old "bone-shaker." The writer is clear and explicit in his views and sufficiently conservative to gain the confidence of his readers. This second volume contains over 600 pages, and is devoted to operations on the mouth, nose, esophagus, peritoneum and connected organs, the thorax, neck, and the male sexual organs. The volume contains 827 illustrations, forty of which are coloured. As the title indicates, it is devoted exclusively to operative surgery, there being no description of pathology or diagnosis. Volume II., dealing as it does with the peritoneal viscera, is of extraordinary interest. The illustrations are not only copious, but are plain, exact and instructive, and show surgical relations, and the descriptive text is exhaustive, leaving nothing to be desired on the part of the operator as a guide in the various surgical procedures. All the newer techniques are fully described with admirable clearness. A peculiarity of modern surgical nomenclature is shown in the work by the enormous number of operations that have been named after individuals. With the various modifications, they amount to hundreds. Perhaps this is the best method designating operations, but it imposes a serious burden on the memory. The publishers have made a handsome volume, the presswork, binding and paper being of a superior character. We can safely predict that Bryant's Surgery will continue to hold its place as a representative American text-book.

R. C.

Progressive Medicine, Vol. III., September, 1901. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 428 pages, 16 illustrations. Per annum, in four cloth-bound volumes, \$10.00. Lea Brothers & Co., Philadelphia and New York.

This volume has been issued promptly on time and is fully up to date in every way. It certainly will prove of more than usual value to the general practitioner, and, after all, to what larger constituency could a publisher appeal. Dr. Ewart presents the most recent views on pneumonia, tuberculosis and other conditions of the respiratory tract. The advances in the treatment of pneumonia and phthisis have been so remarkable in the past year that this section will be read with especial interest. The surgical treatment of various affections of the lungs and pleura has been extended of late in a manner which opens a field which gives promise of great benefit to sufferers from these conditions. In the consideration of the diseases of the heart and blood-vessels, Dr.

Ewart discusses very fully the recently exploited forms of treatment by baths medicated and otherwise.

The section on Dermatology and Syphilis by Dr. Gottheil, besides giving the most advanced information concerning the ordinary problems presented in those subjects, discusses very fully the new and important subject of photo-therapy and the Finsen light treatment, blastomycetic dermatitis and inoculation tuberculosis.

In the section on diseases of the nervous system, Dr. Spiller devotes a large portion of his space to an able discussion of tumours and abscesses of the brain. He also describes the commoner forms of the peculiar nervous diseases which are sometimes so puzzling to those who have not made a special study of neurology.

In obstetrics Dr. Norris discusses very fully the treatment of eclampsia. He gives also the most recent views on the subject of symphysiotomy, and discusses the large number of recently reported cases in which lumbar anæsthesia has been employed in obstetric practice.

In the above we have briefly outlined some of the more important features of the work. Its scope, however, includes an interesting narrative of the practical advances made in diseases of the thorax, dermatology, syphilis, diseases of the nervous system and obstetrics. F. W. C.

A Text-Book of Pharmacology and Therapeutics; or the action of drugs in health and disease. By Arthur R. Cushny, M.A., M.D., Aberd., Prof. of Materia-Medica in the University of Michigan; formerly Thompson Fellow in the University of Aberdeen, etc., etc. Second edition revised and enlarged. Lea Bros. & Co., Philadelphia and New York, 1901.

There is little to be added to what was said of this excellent work when it appeared in June, 1899. We congratulate the author on his deserved success. The exhaustion of the first edition in a little over one year has afforded opportunity for a revision in some subjects and the addition of others. The question of the rôle of Iron in the economy is always an entrancing one, and we could have wished a fuller article on the subject. The researches of Arthman Bruère, of Bishop's College, Montreal, now in progress, may, we hope, throw some light on this discussed point. The classification, a modification of Buckheim & Schmiedeberg, has been adhered to. On the whole, the book is much the best of its kind published to-day. The printing and binding are in the Lea's usual style, but *why* will they not hearken unto the plea of those for whom the book is intended, and give up the eye-destroying, glossy-surface paper, substituting the rough-non-reflecting paper so soothing to the tired eye of those who can only read after a hard day's work?

R. W.

CANADA MEDICAL RECORD

NOVEMBER, 1901.

Original Communications.

RETROSPECT OF LARYNGOLOGY.

UNDER THE CHARGE OF
GEORGE T. ROSS, M.D., D. C. L.

Fellow Am. Laryn., Rhin. and Otolol. Society, Laryngologist Western Hospital. Lecturer on Diseases of the Throat and Nose, University of Bishop's College.

VENTRICLE OF LARYNX AS A HARBOUR FOR DIPHTHERIA BACILLI.—Jobson Horne cites two cases where cultures from oro-pharynx, larynx, and even trachae, failed to show diphtheric bacilli, but at the post mortem cultures taken from the interior of ventricles of larynx produced a typical growth. The author thinks such cases prove that the ventricle alone may at first harbour the bacilli, and those fatal cases of so-called membranous laryngitis which have been regarded as non-diphtheric may really be cases of true diphtheria. Moreover, these facts may explain the recurrence of diphtheria in which external sources of infection can almost certainly be excluded in the second attack.

GENERAL ANAESTHESIA IN OPERATIONS UPON NOSE AND THROAT.—Gleitsman discarded the A. C. E. mixture seven years ago, and now uses Merk's Ethyl Bromide for general anaesthesia, complete narcosis being produced by about 30 grams. He always operates with the child in the upright position, and in 500 operations had only two accidents, one a secondary hemorrhage, the other sepsis.

MORBID CONDITIONS SIMULATING ADENOIDS.—Wingrave gives a list of these conditions as follows:—

1. Diminutive choanae and nostrils.
2. Low vault of pharynx.

3. Paresis of soft palate and pharynx.
4. Vomerine crest.
5. Distortion of vertebral column.
6. Retropharyngeal abscess.
7. Hypertrophy of palate tuberosities.
8. Webs and neoplasms.

TONSILLOTOMY RASH.—Wingrave refers to the surgical rash which not infrequently follows the removal of tonsils and adenoids. This may be simple and non-specific and soon disappear, or it may be from drug intolerance, or if operation be done when tonsils are inflamed, such as is advised by some authors, it may be the rash of scarlatina, or the eruption occasionally seen in diphtheria, and thus deserves watching.

IMPORTANCE OF PREVENTING CHRONIC, SUPPURATING ETHMOIDITIS BY PROMPT TREATMENT.—Clarence Rice concludes his article on this subject—as follows :—

1. No nasal disease should be allowed to progress far enough to produce obstruction, deficient drainage, the close contact of turbinals with septum, and the retention of muco-purulent secretions, because in those conditions there exists great danger of extension of disease to the sinuses, and especially to the ethmoid cells.

2. All surgical work in the nose should be carefully and cleanly performed, so that no resulting infection can produce chronic suppurating ethmoiditis. He favours the persistent use of antiseptic powders for the first forty-eight hours after operation, in preference to the older method of washing the nasal passages, and believes this is a better safeguard against sepsis.

ABNORMAL PULSATING PHARYNGEAL VESSEL.—Tilley showed a patient suffering from enlarged tonsils and adenoids where such a vessel existed, and discussed the advisability of operation, at a meeting of the London Laryngological Society. It was decided that, in the hands of an operator with special skill, the removal might be successfully done, but the risk was generally admitted.

DI-iodoform IN TUBERCULAR LARYNGITIS.—Massier (Nice) reports the result of treatment in seven (7) cases of laryngeal tubercle by this remedy, and concludes from

the data mentioned that the drug is very efficacious in allaying dysphagia. It may be used alone or incorporated with cocaine or morphia into impalpable power. Although the pulmonary disease continues to progress, the pain and distress while swallowing is so much relieved that ordinary food can be taken with comparative comfort. Some of the cases cited had been treated earlier with the much-vaunted orthoform, and were in consequence much aggravated. The formula recommended is the following :—

R

Di-iodoform.....	8.0 gm.
Cocaine mur.....	0.08 gm.
Morph. mur.....	0.04 gm.

for insufflation.

Selected Articles.

REMARKS ON TUBERCULOSIS AND ITS TREATMENT.

By DR. BARADAT.

Consulting Physician at Cannes (French Riviera).

Read before the British Congress on Tuberculosis for the prevention of Consumption, July 22-26, 1901.

In the case of tuberculosis, as in that of every infectious disease, two factors must be taken into consideration.

The first of these is the infectious agent, the morphological and biological characters of which are so well known nowadays ; the second is the soil which the agent has developed itself in, and whose characteristics are either acquired or hereditary.

All rational medication must, to be complete and really efficacious, apply to these two factors, and take into account all the elements which arise in a given case. For, as Leudet says, tuberculosis presents, in its varied manifestations, special idiosyncrasies, differing absolutely from one individual to another.

Under these conditions only can we hope to be victorious over this dread disease.

As a mater of fact, a review of the new methods of treatment employed in dealing with tuberculosis reveals to us the fact that, although these methods are, without doubt, of real value, they are only efficacious against

certain given systems, and possess no influence over the whole of the phenomena which are to be overcome; certainly, they have special indications, but they are insufficient, because their field of action is but a limited one.

Amongst these indications, the comparative effects of which we shall examine later on, some are destined to improve and to strengthen the soil; others, on the contrary, are specific agents; they give rise to the diapedesis of the white globules, thus multiplying the means of defence with which the organism is provided in its struggle against the bacilli.

A thoroughly rational treatment should take both factors into account; that is to say, the medication employed should act in two ways, both as a dynamogenetic agent and as a specific. One is generally inclined to look upon each new method of treating tuberculosis as one that will immediately effect a radical cure of this terrible disease, without taking into account either the infectious agent and its toxine, or the soil on which these latter react.

We must oppose this tendency, and attempt a true, careful and impartial appreciation of the new medications.

Let us, for instance, take the case of an anemic patient: the Koch bacillus has invaded his organism, but still remains latent; if we leave this patient to himself his anemia will increase, his digestive activity will diminish, his strength dwindle away, and assimilation will be reduced to a minimum; there will be, as has truthfully been said, a failure of the whole organism.

What must be done to meet such a case?

Firstly, the organism must be strengthened, nutrition favoured; it is here that a use is found for medications tending to produce these effects, such as arsenic in its more easily assimilable forms (cacodylates), tannin, iodine, cod liver oil, salt lotions, alcohol frictions, sea-baths, a hygienic treatment.

By these means the bacilli will be kept under, their action neutralized, and as long as an equilibrium is maintained between the means of defence and the attack the patient will live.

But a fatal time will come when the bacilli will gain the upper hand, and this under the influence of varied causes, to which an organism already infected will have to pay a large tribute, such as physiological troubles, grief, repeated bronchitis, influenza, measles, scarlatina, and, especially in the case of young subjects, intense physical and intellectual strain—too much bicycling, too much fast living, an excess of emulation and rivalry in examinations and competitions.

So that this treatment of the soil, if we may be allowed the expression, which seemed at first so efficacious, had but an ephemeral effect ; enough had not been accomplished, the disease should have been attacked in its very essence, the bacilli and their toxines destroyed.

It is the same with all medications in the case of tuberculosis, and I should willingly call them partial medications.

Let us consider those that address themselves to the soil, the constitution of the subject.

Firstly, we hold that a hygienic treatment should be the basis, the indispensable foundation-stone of every medication ; without it, they will all fail.

As Professor Letulle so picturesquely puts it, the patient must be "*centrifuged* ;" he must be taken away from large towns, from the centres where diseased persons are collected ; he must be given the pure, fresh, invigorating air of the seaside or of the mountains ; he must have in profusion sunlight, an agent as salutary to man as it is destructive to microbes.

In our opinion this hygienic treatment will best be realized by means of *free sanatoria*, Landouzy's home sanatoria, such as we find them scattered, in the shape of villas, along our sun-bathed Mediterranean shores. There all the required conditions, not only hygienic, but moral and inspiring as well, can be fulfilled.

In private sanatoria for the rich, the culinary arrangements for such a large number of people are necessarily unsatisfactory, the cooking is less carefully attended to, the dishes less carefully prepared, and less adapted to individual wants, to stomachs often fatigued and upset.

As a matter of fact, the question of food is of vital importance in the treatment of a disease in which super-alimentation plays such an important part.

The private sanatorium should be reserved for the impulsive, for those who are incapable of energy and self-direction.

Besides, how many of these sanatoria are carelessly conducted ! How many paying sanatoria are under the control of commercial managers, who allow alcohol in all its forms to be freely distributed ! who close their eyes to promiscuities which are dangerous, often immoral, and always harmful to patients who must carefully husband their strength.

On the contrary, we willingly acknowledge the usefulness of the sanatorium destined to the poor. In their case hygienic discipline will always be maintained, for there

will be no reason for unbending before the perspective of rapid gains and big dividends ; on the other hand the poor will always find at a sanatorium better feeding than at home.

As for the medical treatment, much has been said of cacodylate of sodium.

We shall not attempt a complete study of this substance. The most important thing for us is to be thoroughly acquainted with its real value. Its action and its efficiency must be measured by the light of the experience of numerous observers, and of our own. Its promoters were wrong, in our opinion, to call cacodylate of sodium a specific agent against tuberculosis. As against the numerous favourable observations, and which we do not doubt in the least, of Messrs. A. Gauthier, Renaut, Rendu, Letulle and others, we have to set off many others, equally unimpeachable, and where the results on tuberculosis have been *nil*.

In the course of our practice we currently employ cacodylate of sodium ; its effects have proved excellent in cases of anemia, of ganglionic and lymphatic persons, of chlorosis ; in such cases we have observed a regular revival of the physiological functions, an increase of appetite, a resorption of ganglia. On the contrary, we have obtained less favourable results in cases of ulcerous and cavitary tuberculosis.

Burlureau, in a recent and thoroughly complete study on cacodylate, has come to the same conclusion. "As for tuberculosis," he says, "I regret to have to say that, contrary to the opinion of Professor Gauthier, it is in this disease that cacodylate has given me the least favourable results. Out of twenty-nine cases of pulmonary tuberculosis I have only once obtained a really favourable effect, and that was but temporary."

Cacodylate will be specially useful for the predisposed, for those incipient cases which were so difficult to diagnose, and which we have now learned to recognize.*

As for the vanadates, they have not fulfilled the expectations formed of them ; but this is partly due to the difficulty experienced in obtaining thoroughly determined products.

For instance, Landouzy, Grancher, Sanchez have revealed to us the delicate stethoscopic signs of the period of germination ; Bard and Faisans have showed us the importance of the cardiac rhythm, of tachycardia ; Roussel and Boix that of the scapulo-thoracic amyotrophias ; Bouchard, Beclere, Kelsch, Maragliano have taught us the radioscopic signs of incipient tuberculosis ; Arloing, Mongour, Courmont have established on a sure basis the early diagnosis of tuberculosis by sero-diagnosis by agglutination ; Albert Robin and Binet give us the same certitude by the analysis of the respiratory chemism ; Sirot and Fink by the observations of the effects produced by injections of artificial serum ; Gaube (of Gers) by the study of the demineralization of the tissues.

The same must be said of certain artificial serums, which must be classed among the soil strengtheners, and are wanting in bactericidal powers, or rather in the power of exciting diapedesis and phagocytosis.

We now come to the raw meat treatment.

The experimental researches of Richet and Héricourt have proved that raw meat juice acts, not as a strengthening agent, but as an antitoxine. This antitoxine would neutralize the effects of the tuberculosis toxine.

This juice is the muscular plasma, obtained either by the press or by congelation followed by rapid thawing of the muscular tissue.

The following is the method I have adopted at Cannes in the case of patients whom I submit to this treatment ; the daily quantity of mashed meat is 800 grms. (28 ozs. about) ; the patient takes as much as he can, the rest of the meat is pressed in order that the juice may be extracted.

The plasma must be taken immediately after having been prepared, otherwise one risks swallowing a putrefied and toxic substance.

Although this method has given me excellent results, I consider it difficult to put into every-day practice.

It possesses many inconveniences ; for one thing it is not within everybody's reach ; it is costly in preparation, and requires 800 to 1500 grms. of meat daily ; it is supported with difficulty by many patients ; it requires constant supervision, for this meat juice soon putrefies and becomes toxic. Injected under the skin of an animal it causes death in a few minutes.

Experiments with this anti-tuberculous plasma have been made in the laboratory of Messrs. Richet and Héricourt. These attempts at hypodermic injections of an immunizing and even curative liquid led us to read once more the already old but very complete works on the bactericidal or antitoxic properties of the blood of animals that are refractory, or seemingly refractory to tuberculosis.

The medical literature of 1890 to 1895 shows us how this question has been strenuously discussed and deeply criticised.

However, from these works we glean the following fact : that the blood of certain animals confers on other animals immunity from tuberculosis, and may even cure this disease. . "As far back as 1888," says Professor Bouchard, in writing to Mr. Bertin, one of the promoters of anti-tuberculous sero-therapy, "I expressed the idea

that vaccines were destined to play a part, not only in the prophylaxis, but also in the treatment of this disease."

For my own part I have no hesitation in attaching myself to the method of anti-tuberculous sero-therapy introduced at about the same time, in 1889, by Richet and Héricourt, and by Bertin and Picq, for I think that therein lies the solution, so long sought, of the problem of the cure of tuberculosis.

Naturally, with this medication just as with any other, we must not wait for the patient to be emaciated, to present digestive troubles and cachexia before treating him.

For, we insist on this point, tuberculosis is not consumption. A consumptive or phthisical person is one in whose case the Koch bacillus, after having terminated its progressive career, has slowly brought on the suppurative destruction of the cells attacked, and in this mass of destroyed matter you will find all the processes provoked by the staphylo-, the strepto-, and the pneumococcus, working together with the Koch bacillus.

In this case you have phthisis, consumption, the hectic fever which brings on a fatal issue; imagine that, by some means, you could at this period destroy the bacilli of tuberculosis, your patient would still succumb to the strepto-, the staphylo-, and the pneumococcus.

As a matter of fact, says Landouzy, it is this idea of helping those who are in the incipient stage, at a time when the germs of secondary infection have not yet attacked them, that has led medical men to make use of "the immunizing agents that are antitoxic or bactericidal owing to their strengthening action on phagocytosis."

This science of sero-therapy, which we owe entirely to the French school, has been perfected by Pasteur's most renowned disciples, by Drs. Duclaux, Roux, Grancher, Nocard, Metschnikoff, Yersin, Calmette, Leroux, Charrin, Marmorek, Boinet, and many others, among whom we must mention Bertin and Picq, who were, together with Richet and Héricourt, the promoters of modern sero-therapy.

The use of natural serum has given me unexpected results in serious cases of tuberculosis, and I have always been surprised to find that this method of treatment is not better known; natural serum seems to me to fulfil all the required conditions, for it is both dynamic and bactericidal.

As we know, in the case of tuberculosis, the bacillus acts as a destructive force, but its action is strengthened by that of other destructive forces due to the soil. In one case it will be anemia, in another heredity, in another

influenza, or intellectual or physical strain.

So with these generalities, what are the characters required of a therapeutic agent against tuberculosis? We admit the stimulating and regenerative properties of the general tonics, cacodylates, phosphates, cod liver oil, etc.; we will even allow the anti-toxic property of meat juice, but has anyone the right to say that each of these agents fulfills the two conditions necessary to the cure of tuberculosis? Certainly not, for they are either simply stimulating and strengthening, or simply antitoxic. Bertin and Picq's serum (goat's serum) seems to me, on the other hand, to be at the same time tonic, antitoxic and bactericidal; it is the one we make use of.

As a matter of fact, daily experience tends to prove that every serum is dynamogenetic, and therefore, a general strengthening agent.

This is proved daily by the use of artificial serum in the case of serious hemorrhage, of anemia subsequent to chronic diseases, of traumatic shock consecutive to operations. In taking into account, however, the comparative value of the two serums, natural and artificial, we find that a very small quantity of the former produces an intense therapeutic effect, whilst the same effect can only be obtained by employing a double or even triple dose of artificial serum. There is here a *quid divinum*, due evidently to the intimate composition of natural serum. No one nowadays denies the dynamogenetic action of serum—it is a recognized fact.

All we have to do is to repeat this action as often as required in order to maintain to a remarkable degree the resistance and the vitality of the patient.

Whilst awaiting experiments, destined to throw light on the still obscure question of the mode of action of serums, we give preference to the theory propounded by Metschnikoff, who looks upon them, not as antitoxic, but as stimulating agents of phagocytosis—in other words, as *stimulines*, provokers of organic resistance.

Therefore, as we admit that the microbial destruction and the arrest of infection are due to phagocytosis, the aim of our therapy must be to increase the activity of the phagocytes, in order that they may the more easily accomplish their mission. Moreover, the happy results that we have obtained this winter by means of natural sero-therapy lead us to believe that this is the real and only effective method of realizing the cure of tuberculosis, especially in its early stages, now that the means of diagnosis which we possess permit us to discover the very earnest symptoms of incipient tuberculosis.

This treatment is absolutely innocuous and easily applied ; one hypodermic injection of two cubic centimetres every other day. In some cases, however, in the case of nerve patients especially, I have observed after each injection an exaggeration of cellular activity, showing itself in the shape of fever, erythemia and dyspnoea ; in such cases I administer the serum internally. But in order to obtain the same tonic and stimulating effects I have to increase the dose, and administer ten cubic centimeters instead of two, as in the case of hypodermic injections.

These results agree with those obtained by Grasset, who concludes by saying that the administration of serum internally is the method of choice, because it is free from danger and gives rise to no accidents. Nevertheless, even with Bertin's serum, we are of opinion that the cacodylate medication should be employed as a precious adjuvant in most cases on the same level as tannin, iodine and cod liver oil.

JOYS OF A COUNTRY DOCTOR.

The old-fashioned country doctor, with his saddle bags and his proverbially large pills, has passed into memory, but there still remain to carry on his work those disciples of Esculapius whose tents are pitched "far from the maddening crowd," who must still overcome many of the obstacles with which he had to contend, although in many ways better prepared to meet them.

Little do the city practitioners realize the physical and mental strain under which their rural brothers are placed day after day from January to December. The country physician is expected to do work along all lines ; in fact, is compelled to do it and hold himself at all times ready to meet any emergency.

Like the mate of the "Nancy Jane," he must be surgeon, obstetrician, oculist, aurist, rhinologist, dentist and veterinary, besides general practitioner, all in one.

To be successful, a country doctor must be ingenious, ready for anything that may come in his way, be able to devise instruments and apparatus, to meet all requirements on short notice, from a very meagre supply.

He must be in full control of his "nerve" at all times, for he does not know when he will be called on to meet a very alarming condition, and that, too, single-handed.

Unlike the city, where in a few minutes, counsel and skilled nurses may be procured, he must think it all out alone, and apply his treatment all alone, for in an emergency case most bystanders are too much frightened to be of any assistance. It may be a placenta previa, applying forceps or numberless other conditions, where at least two seem necessary, but where in many cases there is no time to wait two or three hours till help can be secured.

As an example of the physical endurance necessary, imagine yourself, after a hard day's work, riding ten to twenty miles, on a pitch dark night, with the mud a foot deep every step of the way. Or the scene may change to a past zero night, when the icicles will form in fantastic shapes on your whiskers, so that when you arrive at your destination you must call for a pan of hot water to remove your unseemly adornments. No doubt the city doctor envies him his cool, quiet drives "along shady lanes and babbling brooks," but how would he enjoy a trip like that suggested?

The country doctor knows everyone in his territory, and callers at his office make it a rule to stay an hour or two talking over things in general; that, too, it may be, when the doctor is waiting for his dinner, or wants a little time to himself. Still, he must grin and bear it, for upon the people depends his daily bread, which in some cases is a misnomer (coming only every second day).

He must take from his bad patrons wood, corn, hay, etc., and a large portion of the remainder wait six months or a year, and then make several trips to collect it. It will offend the people if he sends a bill or someone else, so he must go in person. This too with fees that are already too low.

He is expected to be a travelling health report of all the sick under his care, for almost everyone he meets will say, "How is John Jones' baby?" or, "Sam Smith's wife will never get well, will she?"

A doctor must also look pleasant and smile when people say (as most of them do) "how are you, Doc.? Is there much sickness now?"

Every boy who can find a lemon essence bottle or two will bring them to you to sell, and you must buy them or you may offend the family. Very often your own bottles will be brought back when their contents are not yet paid for.

Every case is diagnosed by all the old women in the township before the doctor arrives, and of course he is expected to give his opinion, when those who concur will

say, with a triumphant look at the others, "that's what I thought."

According to country tradition a lying-in woman must not be washed or have her linen changed till the third day ; a baby must nurse during its second summer ; a diarrhoea must not be checked during teething ; flannel must be worn till the teeth are all cut ; for a diuretic in the new-born, give water-melon seed tea ; for abscess of the breast, use cow dung poultice ; when a child picks its nose it has worms ; and dozens of other notions which the doctor must often overcome, and are, as the Irishman said, "equally worse."

I am glad to see, however, that the more intelligent people are getting above this sort of thing and are trusting more in the doctor.

The country physician is fast coming to rank with the best in education, intelligence and skill, although by reason of his location he will always be handicapped in many ways. More trained nurses are being used in the country, which will not only make the work less arduous, but will bring better success as well.

Of course he has many advantages found nowhere else, such as pure air, plenty of fresh milk and usually good water.

As time goes on, less surgical work will be sent to the city, for it is possible for two or three men in a town to assist each other in doing this important work at home and adding not only to their prestige, but their pocketbooks as well. With trained nurses and clean, quiet surroundings, with the patient at or near his own home, the cost can be greatly lessened and the best results obtained.

Life is such that we all have our joys and our sorrows, and this is not intended to convey the meaning that no one but a country doctor has hardships, but merely to give a few points from his view of the matter of conditions as they actually exist. Probably the reader will like to suggest a different heading for this article by this time.—H. A. Giltner, M. D., Chelsea, Indiana.—*Wisconsin Med. Recorder*.

Progress of Medical Science.

MEDICINE AND NEUROLOGY

IN CHARGE OF

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CLINICAL EXPERIENCE WITH ADRENALIN.

By Emil Mayer, M. D., Surgeon, New York Eye and Ear Infirmary, Throat Department; Fellow American Laryngological Association, and of the New York Academy of Medicine, New York. Abstract from original paper in the *Philadelphia Medical Journal*, April 27, 1901.

The aqueous extract of suprarenal gland is perhaps the best culture medium known. Its instability, the involved method of preparation, its unsightliness and the inexactitude of its various strengths tend to make us welcome a preparation that is exact, stable and, above all, clean. Dr. Jokichi Takamine undertook the task of isolating the active principle of the suprarenal gland. He obtained a substance in stable and pure crystalline form, which raises the blood pressure, and which he named "adrenalin."

The author has used solutions of adrenalin chloride, 1 to 1,000, 1 to 5,000 and 1 to 10,000; his cases were all rhinological. Blanching of tissues followed the application of the strongest of these solutions in a few seconds, and was very thorough. In no instance was there any constitutional disturbance. He has employed no suprarenal extract since, for any purpose whatever.

The effect of the solutions was not altered by their change to a pink colour; they were used for six weeks. Subsequently a small amount of chloretone was added to the fresh solutions, and now there is but slight change of colour and no floccules appear.

Thirty-five cases are reported in tabulated form, showing that the usual effect of the aqueous extract of the suprarenal gland was obtained. A few operative cases bled freely, but in every instance the hemorrhage was promptly checked by a second application of adrenalin. The adrenalin was used not only as a hemostatic, but for

the relief of nasal congestion, as a diagnostic aid, and for the continuous treatment of acute inflammatory affections of the accessory sinuses.

The author arrives at the following conclusions :

1. Adrenalin solutions supply every indication for which the aqueous extract has been used.
2. They are sterile.
3. They keep indefinitely.
4. Solutions, 1 : 1,000 are strong enough for operative work ; and 1 : 5,000 and 1 : 10,000 for local medication.
5. They may be used with safety.

In this connection it is interesting to note that E. Fletcher Ingalls, M. D., of Chicago, also had a very satisfactory experience with adrenalin. In a paper entitled "Notes on Adrenalin and Adrenalin Chloride,"* he reports that he experimented with solutions, varying from 1 to 1,000 to 1 to 10,000, of the chloride of adrenalin in distilled water or normal salt solution, and kept careful records until satisfied of its activity. In nine cases a very small quantity of a spray of one part of chloride of adrenalin to 10,000 parts of water was applied to the nasal cavities, with the effect of blanching the mucous membrane quickly, and in most cases causing contraction of the swollen tissues similar to that caused by cocaine. The first solution used was made with distilled water and caused smarting ; normal salt solution was then used as the solvent with perfect satisfaction. The smarting may have been due to the presence of a small quantity of formalin in which the atomizer had been washed just before use.

Experiments were also made with insufflations of a dry powder consisting of 1.5 per cent. (75 parts) each of baborate of sodium and bicarbonate of sodium ; 3 per cent. (150 parts) light carbonate of magnesium ; one part of adrenalin to 5,000 parts sugar of milk. This powder cleared the nasal cavities when obstructed by swelling of the turbinated bodies, and diminished the secretions decidedly. A case of daily epistaxis was relieved by sprays of a 1 to 10,000 solution. Another of conjunctival congestion from overwork was entirely relieved by the instillation of a similar solution. The author has had equally satisfactory results in cases of conjunctivitis ; laryngitis, acute and chronic ; acute laryngitis with edema glottidis ; acute coryza ; chronic laryngo-tracheitis with acute exacerbation ; and in preparation for operations upon the nose.

* Journal of the American Medical Association April 27, 1901.

In conclusion, the following results are presented : This remedy will be of great value in the treatment of acute inflammatory affections of the nasal cavities, either in sprays of 1 to 5,000, or in powders of 1 to 5,000 or 1 to 2,500 sugar of milk. In acute coryza and in hay fever, in epistaxis from various causes, in acute inflammation of the fauces, solutions of 1 to 1,000 will have good effects. In acute or subacute laryngitis solutions of 1 to 1,000, applied with moderate force, will give very great relief; it appears probable that vocalists may obtain sufficient relief from congested cords, for at least two or three hours, to obtain normal efficiency in the use of the voice.

In a paper read before the Chicago Laryngological and Climatological Association, W. E. Casselberry, M. D., called attention to the fact that adrenalin chloride solution is clear, colourless, odourless, sterile and stable, if protected from heat, light and oxidation; it is non-irritating to mucous membranes. When applied locally it exerts identically the same vaso-constrictor influence as the aqueous adrenal extract. Sprayed into the nostrils in the strength of 1 to 10,000 it produces a visible change from turgidity to compactness of the turbinated tissues, and a decided pallor of the mucous surfaces. In the strength of 1 to 1,000, or even 1 to 5,000, it has the power to limit hemorrhage during operations and is an aid in the treatment of epistaxis. It may be substituted for cocaine in all cases in which an ischemic effect is desired, *e. g.*, to facilitate inspection of the deeper recesses of the nasal cavities and to make them more accessible. Adrenalin has little or no cerebral stimulant effect, exciting no desire for more of the drug, hence there is little risk of habit-formation.

The author expresses the opinion that adrenalin should afford relief in asthma associated with bronchitis and vaso-motor paralysis, although he would expect little benefit from its use in asthma characterized by bronchial spasm. It may be formed into an ointment with vaseline, or mixed with stearate of zinc, powdered starch, or sugar of milk to make powders for nasal or laryngeal insufflation. The bibliography is very comprehensive, covering the literature of the subject down to the present date.

SHOULD INVALIDS SMOKE ?

Dr. Jankau, in an article in the *Zeitschrift für Krankenpflege*, tries to answer the question so often asked by patients and convalescents : "May I smoke, Doctor ?" As a general rule, there is no need to forbid the use of

tobacco in surgical affections and during convalescence after operation, with the exception of those on the eyes, the abdomen and the bladder. The *Lancet* says: Does the use of tobacco play any part in the pathology of cancer of the lips and of the tongue? Nothing certain can be said on this point. It should be forbidden as a general rule in affections of the throat and of the pharynx and with certain restrictions in catarrh of the nasopharynx. The toxic action of tobacco must not be forgotten, and those suffering from internal affections should only be allowed to smoke with circumspection. Fortunately, however, most of the affections in which the use of tobacco is injurious are just those which cause the patient to dislike it; indeed, attention is often drawn to the fact that a man is unwell by his evincing a disinclination for smoking. Therefore, it is occasionally a good sign when the convalescent again feels a desire to smoke. Tobacco should be strictly forbidden in cases of peritonitis, typhlitis and peri-typhlitis. According to Dr. Jankau, gastric affections should not be considered an absolute counter-indication. Patients who suffer from organic affections of the heart cannot generally tolerate tobacco with any ease. Nevertheless, an habitual smoker may be allowed two or three mild cigars daily. As to pulmonary affections, experiments have taught us the prophylactic and even bactericidal action of tobacco on the micro-organisms of the mouth and those of carbuncle, of typhoid fever and pneumonia. The same effect of tobacco is seen in the case of bacilli of tuberculosis. He also considers that it is a great mistake not to allow those in the first stage of phthisis to smoke. On the contrary, he would encourage them to do so even more than formerly. There are two other points in favour of tobacco—its disinfecting qualities on the mouth and the soothing effect exercised by it on the genital functions, which, at the beginning of tuberculosis, are very excited. Moreover, tobacco has a favourable influence on the central nervous system, both on the account of its slightly narcotic action and by distracting the patient's thoughts from himself and his illness to his smoking and the associations which it brings with it. It is most important that phthisical patients should be prevented from continually thinking of themselves and their malady. Tobacco need not be absolutely forbidden even when hemoptysis exists, if only it is but slight. With regard to functional affections of the nervous system, it would not be advisable absolutely to forbid smoking from the commencement of the disease. The medical attendant should, however, be careful to state

plainly the number and quality of cigars which may be smoked, and to ascertain as far as possible whether the patient adheres to the directions given.—*Health*.

MIGRAINE.

W. Whitehead, in *Brit. Med. Jour.*, reports some very interesting cases of migraine which he successfully cured in every instance by means of the ordinary tape seton. He grasps at the back of the neck between the finger and thumb of the left hand, and then transfixes the skin with a scalpel and passes a needle or probe, with an eye, through the wound. A piece of tape one-half inch wide is drawn through the wound. Four or five inches of tape is left on either side of the wound, and tied so that the tape can not be displaced. The patient is ordered to move the tape in the wound from side to side each day. This seton is allowed to remain continuously for three months. If the migraine reappears at the end of that time another seton should be introduced. Anaesthesia with nitrous oxide for one-half minute is sufficiently long for the operation.

THE TREATMENT OF CAPILLARY BRONCHITIS AND PNEUMONIA.

Dr. Leonard Weber (*Post Graduate*) says that, in cases of capillary bronchitis and pneumonia, he has successfully employed the hot mustard bath when the patients were at their worst, and has succeeded in relieving the congested lungs and helping the overburdened heart after other remedies had failed. In the hot mustard bath we have two agents acting upon the surface of the body ; first, the mustard, a powerful irritant, attracts blood to the integuments. The hot water, on the other hand, dilating the blood vessels, as it does when applied for a short period of time, helps to increase the amount of blood at the periphery. The surface of the body being large, a correspondingly large amount of blood is thereby drawn toward it, which must, in a great measure, relieve the obstruction of the pulmonary circulation.

The cause of over-distention of the right ventricle of the heart being removed or considerably lessened thereby, the heart itself gets a chance to regain its propelling power, and to properly receive and discharge the blood that is brought to it. The bath is also a powerful excitant and stimulant of the central nervous system, especially the vasomotor center acting reflexly through

irritation of the nerves at the periphery. In cases in which Dr. Weber had employed it, camphor and carbonate of ammonia had failed to relieve the comatose condition of the patient, but all alarming cerebral symptoms of the patient were materially improved soon after the first bath. Finally, the bath favours an exchange of the gases of the blood through the capillaries of the skin.

The bath is easily prepared ; the materials for it can be easily procured in the households of the poor as well as the rich ; its action should be prompt ; there is no danger whatever in applying it as often as the urgency of the case may require, and it is a valuable means of fulfilling the vital indication in severe cases of pneumonia in children. Dr. Weber would look, other things being equal, for equally good success with it in the adult.

CONDENSED REMINDERS ON VARIOUS FEVERS AND INFECTIOUS DISEASES.

Period of incubation : This is the period elapsing between the entrance of the poison and the development of the symptoms. It varies considerably in the same disease, being more or less influenced by the susceptibility of the patient and the virulence of the contagion. The average period of incubation in the infectious fevers is as follows :—Typhoid fever, two to three weeks. Typhus fever, a few hours to two weeks. Measles, two weeks. Rotheln or Rubella, ten to twelve days. Scarlatina, a few hours to one week. Smallpox, one to two weeks. Erysipelas, three to seven days. Diphtheria, two to ten days. Varicella, ten to fifteen days. Tetanus, a few days to two weeks. Mumps, two to three weeks. Yellow fever, from a few hours to a week.

The date at which the rashes appear in the various diseases is as below : Typhoid fever, seventh to ninth day. Typhus fever, fourth or fifth day. Smallpox, third or fourth day. Measles, third or fourth day. Scarlatina, first or second day. Varicella, first day.

Few diseases give absolute immunity from future attacks, but the following are fairly protective : Typhoid fever : relapses are common and second attacks occur. Typhus fever : second attacks very rare. Measles : second attacks uncommon. Rotheln : second attacks uncommon. Scarlatina : second attacks rare. Smallpox : second attacks occasionally occur. Mumps : second attacks rare. Yellow fever : second attacks rare.

The following do not confer immunity : erysipelas ; relapsing fever ; diphtheria ; malaria ; influenza ; croupous pneumonia.

The infectious fevers usually associated with jaundice are : yellow fever ; relapsing fever ; acute yellow atrophy of the liver ; bilious remittent fever.

The fevers apt to end by crisis are : typhus, pneumonia, influenza, measles, relapsing fever, erysipelas fever.—*Practice of Medicine, Stevens.*

COUGHS.

All coughs are either moist or dry. A moist cough is nearly always paroxysmal ; expectoration is usually most abundant in the morning. This cough, like all others is often nearly or quite suppressed toward the fatal end of most grave diseases, owing to carbon dioxide narcosis.

Anatomically, most coughs are either pulmonary or bronchial. The pulmonary class is marked by more or less percussion dullness, and by double subcrepitant and inspiratory crepitant rales or bronchial breathing. The bronchial class is marked by soreness, oppression, pain and irritation in the upper sternal region, and by moist double rales.

A dry cough is usually short, sharp and hacking, though sometimes paroxysmal. Reflex forms are generally quickly relieved by treating a local cause, or they may be produced artificially by irritation of the affected locality. There is inability to cough in bulbar paralysis and extensive destruction of the larynx. A dry, pulmonary cough is accompanied by broncho vesicular or bronchial breathing and impaired resonance.

Dry bronchial coughs are tight and harsh, with sonorous and sibilant rales.

Laryngeal coughs are hoarse, harsh, deep and rough, with altered voice and laryngeal pricking, burning and soreness and a constant desire to clear the throat.

The pharyngeal cough is accompanied by a pricking feeling in the throat or feeling of fulness.

Nasal coughs are marked by local signs and by "hawking" down mucus from the posterior nares.

The faucial cough is usually worse on lying down, and is attended by a tickling in the throat.

The oral cough is due to irritation of tongue or teeth.

Aural coughs are due to irritation of the auriculo-temporal branch of the fifth nerve, and may be accompanied by considerable expectoration.

Pleuritic coughs are generally painful, with quick and painful breathing, and often friction murmurs or flatness.

Pressure on the respiratory tract by tumours or pseudo-tumours excites a cough, which is laryngeal in character.

Visceral disease is a rare cause of cough, and diagnosis should be made by strict exclusion.

A uterine cough is hacking, very painful and tiring, and repeated two or three times in succession. It is excited by the least irritation.

Nervous coughs deserve considerable attention. They are periodic or paroxysmal, usually high-toned, quite variable, slight or prolonged and painful. Two important general characteristics are that they disappear entirely during sleep, and are accompanied by no secretion whatever. On auscultation there are sometimes wheezing, rattling, scraping sounds, and there may be spasms, convulsions or aphonia.—*Denver Med. Times.*

THE THERAPEUTICS OF WHOOPING COUGH.

T. J. Mays advocates the application of counter irritants over the region of the pneumo-gastric nerves in the neck, and states that, in his experience, this method is the only one which leads to any notable amelioration of symptoms. His method is thus described :

Trace the pulsating carotid artery from behind the angle of the lower jaw to the clavicle on both sides of the neck. This will be a landmark for finding the pneumo-gastric nerves, which lie in close proximity and slightly behind the carotids. Gentle massage and kneading of this region of the neck, every hour or two, yield beneficial effects in many cases of this disease. The application of a strip of mustard plaster, about two inches wide, from the angle of the lower jaw to the clavicles on each side of the neck two or three times a day, until the effects of the mustard are evident, is almost sure to cause amelioration of the spasmodic cough. Equal parts of gum camphor, chloral hydrate and menthol applied over this region are also very useful. Painting the same area with tincture of iodine, twice a day, until irritation of the skin is produced, is a beneficial procedure. Finally, in very stubborn cases the hypodermic injection of silver nitrate over the vagi must be resorted to in accordance with the following plan : Lift the skin over the vagus between the thumb and the forefinger of the left hand, introduce the hypodermic needle just under the elevated skin, and

inject five minims of a two-and-a-half per-cent. solution of cocaine hydrochloride. Detach the syringe from the needle and allow the latter to remain in the puncture. Wash out the syringe with water, draw a two-and-a-half per cent. solution of silver nitrate into the syringe, attach the latter to the needle, and throw in from three to six minims of the silver solution.—*N. Y. Medical Journal*.

CONDITION OF THE KIDNEYS WITH REFERENCE TO THE EMPLOYMENT OF DIURETICS.

A. R. Elliott (*Med. News*, vol. 79, no. 6) concludes a valuable and timely article thusly :

1. Except in the case of the irritant-epithelial diuretics (turpentine, cantharides, etc.), the entire class of diuretics may be said to exert their effect upon the urine by acting indirectly through the circulation.

2. Owing to the necessity for sparing the kidneys all irritation, drugs given for diuretic purposes should act indirectly rather than directly, consequently the secretory diuretics are contra-indicated in irritative and inflammatory renal conditions.

3. In functional urinary disorders diuretics are mainly useful to overcome concentration and hyperacidity of the urine. To accomplish this, simple dilutents and salines are best adapted.

4. In acute nephritis saline diuretics are permissible throughout the entire course of the disease, and exert a beneficial influence by increasing elimination and clearing the tubules of inflammatory debris. Subcutaneous saline infusion constitutes our most powerful eliminant in desperate cases.

5. In chronic nephritis the cardio-vascular diuretics are most useful, owing to the fact that oliguria and dropsy are usually the result of circulatory failure. The dropsy under such circumstances, being of cardiac origin, may be benefited by cardio-vascular stimulants, provided the kidneys are not too badly damaged.

6. Dropsy of purely renal origin is not amenable to favourable influence by diuretics.

7. Although the morbid process in the kidneys may furnish us with our primary inspiration to diuretic medication, it is the condition of the heart and circulatory apparatus in most cases that determines the choice of an agent.

NUTRIENT ENEMAS.

Rectal feeding is too little employed by the average general practitioner. This negligence is due to fear of bother, the disagreeable nature of the operation, and a lack of proper understanding regarding the technique. Even without trained nurses, one may teach any intelligent person, by a single lesson, sufficient to enable him or her to administer the food successfully. It is not to be expected that even the humblest country physician would do such work regularly, even if present at the proper intervals ; and if doctors once realized the simple nature of the procedure, and the benefits to be derived from it, it would be oftener employed.

The best equipment is a smoothly-working piston syringe attached to a large calibre soft rubber catheter. The catheter is lubricated with glycerine or olive oil, and is left in position after insertion, until enough food has been injected ; when one syringeful is injected, the syringe is detached and filled, and again attached to the distal end of the catheter. When enough has been injected, the catheter is removed, and the patient instructed to endeavour to retain the injection by avoiding all bearing down. The discomfort generally passes away in a few moments. Catheter and syringe are then boiled and allowed to cool until the hour arrives for the next injection. The rectum should be washed out once each twenty-four hours with warm water and non-irritating soap.

In giving the injection, the patient should lie upon the left side, with the hips elevated a few inches on pillows, or the foot of the bed may be elevated on bricks or books. The fluid should be at a temperature of 100° F., and should be injected slowly. The intervals between injections may be four to eight hours.

Easily soluble medicines, not likely to irritate the bowel, may be often incorporated with the nutriment, and thus save the patient the annoyance of taking them by the mouth.

No one can rightly deprive a patient of the benefit of rectal feeding through a plea of inadequate equipment, of lack of skilled nurses ; for any syringe will do in an emergency, and any one who can give a sick person a drink of water can operate it.

When a patient cannot swallow, when prolonged vomiting causes a threatened collapse, when any other condition excludes the advisability of administering food by the mouth, then rectal feeding is indicated. Every

physician should become familiar with the simple technique, and be able to give extemporaneously the popular formulas and method of administration, and illustrate the method personally if the circumstance demand it. The mode of procedure is little different from the practice of rectal irrigation for summer diseases of children ; and no doctor, in the coming season, dare ignore the advantages of this treatment. In the name of humanity, so long as you pretend to practice medicine, practice it as well as any one can. Ignore no valuable suggestions, and learn the techniques of all the simpler plans at least.—*Med. World.*

FRONTAL HEADACHE AND IODIDE OF POTASH.

Since there are various forms of headache, and since the remedy that will relieve one patient will utterly fail to relieve another with seemingly the same kind of head-pain, it is necessary that the physician should be armed with a variety of remedies. For some time past we have found minimum doses of iodide of potassium of great service in frontal headache. A heavy, dull headache, situated over the brow, and accompanied by languor, chilliness, and a feeling of general discomfort, with a distaste for food, which sometimes approaches to nausea, can generally be removed by a two-grain dose of the potassic salt, dissolved in half a wine-glass of water, and this quietly sipped, the whole quantity being taken in about ten minutes. In many cases the effect of these small doses has been simply wonderful. A person who, a quarter of an hour before, was feeling most miserable, and refused all food, wishing only for quietness, would now take a good meal and resume his wonted cheerfulness. The rapidity with which the iodide acts in these cases constitutes its great advantage.—*Mass. Med. Jour.*

THE DIETETIC TREATMENT OF EPILEPSY.

Rudolph Balint, in the *Berliner Klinische Wochenschrift* of June 10, 1901, gives an account of his experience with the diet which has been recommended by Toulouse and Richet. This diet is based upon the theory that as the amount of chlorides is lessened in the system the effect of bromides is increased. The diet which the writer employed in the treatment of twenty cases consisted of milk 1000 grammes, meat 300 grammes, potatoes 300 grammes, bread 200 grammes, sugar 50 grammes, butter 40 grammes, coffee 10 grammes, two eggs. The food was cooked without the addition of salt, and one to two drachms of bromide

of potassium was given each day. Under this treatment there was a marked diminution of the convulsions in all of the cases, and in many they disappeared entirely. It was found that the amount of chloride of sodium in the diet as first employed was considerable, and consequently the reduction of chlorine in the organism was not very rapid. The diet was then changed to 1 to $1\frac{1}{2}$ liters of milk, 40 to 50 grammes of butter, 3 eggs, 300 to 400 grammes of bread and fruit. Such a diet approximately equals 2300 to 2400 prepared without salting was also unpalatable. It was found difficult for patients to take meat that had been cooked without salt, and bread which was used was obviated by salting it with bromide of potassium, the latter acting in every way as an excellent substitute for the chloride of sodium. The results in twenty-eight cases that remained for some little time under treatment were: in nine recent cases the attacks disappeared in seven, and in nineteen chronic cases in fifteen; in the remaining six cases the attacks continued, but their intensity was lessened.

CONSTIPATION IN INFANTS.

For constipation in infants and small children cathartics ought not to be given. Instead, let a small quantity of glycerine,—a half-teaspoonful,—to which has been added a few drops of water to make it flow, be injected into the rectum by means of a small hard-rubber syringe. This may be repeated every day when the act of evacuation does not take place naturally. The effect of the glycerine is that of a mild stimulant to the rectum, the result of which is expulsion of its contents. No harm can come of this treatment, while much damage does come from the use of cathartics.—*American Medical Journal*.

ECZEMA AND ALCOHOL.

In connection with general attacks, I think a word should be said about eczema and alcohol. I have recently had a case under my care which has brought this prominently before my mind. A man in active business had been in the habit of taking a very fair quantity of alcohol every day for a great number of years, though never in excess. He was suddenly laid up with an acute attack of eczema. He was treating himself for a length of time before he called in his medical attendant, and during that time he was continuing his alcohol. Afterwards the alcohol was stopped, and under simple treatment he got well.

When he went back to his work he began to take his alcohol as before, and he had a second attack of eczema. It was then suggested to him that he should leave off taking alcohol altogether. He did so, and has not had a return since. I think the relation of alcohol to these attacks is a very important one.—*Brooklyn Med. Jour.*

COLIC, INFANTILE.

Colic is a symptom of many pathological states of the intestinal tract. The causes of infantile colic are : (1) flatulence ; (2) influences acting through the mother ; (3) indigestion ; (4) refrigeration. The absence of pancreatic digestion in early infancy is perhaps one reason for the frequency of imperfect digestion at this time of life. Slow or insufficient digestion results in the development of flatus. If the mother is constipated the infant is apt to be constipated, and the mother's milk, under these circumstances, is apt to produce flatulence. The diet of the mother is also responsible for much flatulence in the infant. Another common cause is taking salts, senna and similar purgatives by the mother, and this, too, even when these drugs are not taken in sufficient quantity to produce any evacuation from the mother's bowel.

Infantile colic sometimes arises from mental worry on the part of the mother, or from suckling the infant immediately after sexual excitement. A case has been recorded in which a most obstinate colic in an infant immediately subsided when the mother had sought the aid of a dentist and had a carious tooth extracted which had caused her much toothache. The commonest cause is overfeeding, particularly too frequent nursing and feeding. Another common error is the giving of too large a quantity of food, even though the latter is of the proper composition and given at suitable intervals.

In comparatively rare instances infantile colic arises from a deficient supply of food. Refrigeration is produced commonly by lying in a wet diaper, walking over a cold floor, or exposure of the abdomen to a draft of cold air. In cases of colic associated with grave pathological conditions one does not see the kicking of the legs observed in simple colic nor does the child cry for a few minutes with pain and then relax into a smile.

The treatment of infantile colic divides itself into : (1) the immediate relief of the pain ; (2) removal of the cause. One of the best methods of treatment is irrigation of the

lower bowel with hot water and the external application of heat. In protracted cases opiates should not be given. In infantile colic nothing is superior to milk of asafetida freshly prepared. The dose is 1-3 to 1-2 teaspoonful, followed, if necessary, by a second dose in fifteen or twenty minutes. It is given with a little fine sugar on a spoon. When the attack comes on shortly after nursing it can often be averted by giving before the nursing some of this medicine or some warm fennel-tea. The general treatment may be instituted in the removal of the cause. Where milk in any form disagrees it should be discontinued as soon as possible, and meat-broth and cereals substituted. Hiccough is sometimes a troublesome sequel, and is most easily relieved by putting a few grains of fine sugar into the infant's mouth.—H. Illoway (*Pediatrics*, July 16, 1901).

CRAMPS OF THE LEGS.

Dr. John McDonald, after discussing the causation of cramps, their relation to the valveless condition of the inferior vena cava, and consequent great hydraulic pressure, to constipation with its pressure on the iliac veins, and to the gouty diathesis leading to the deposit of urates in the muscles surrounding the congested veins of the legs, says that in the remedial treatment of cramps, the attention should be directed mainly toward (1) the relief of constipation ; (2) the removal of the uric acid toxine ; and (3) the establishment of a better nutrition.

It is obvious that for this purpose an effective chologogue agent is of the first importance to stimulate cellular action of the liver ; increase its normal secretions, and initiate peristalsis ; and that combined with an appropriate uric acid solvent, the circulation of the blood may be quickened, while at the same time its subalkalinity may be neutralized and oxidation increased by the removal of the toxine mainly responsible for the abnormal condition.

A more active interchange having thus been established between blood and tissue, the former being better enabled to perform its function of removing poisonous waste, the nutrition of the latter becomes improved, and the third indication is fulfilled. The author records a case of obstinate cramps treated successfully on these lines.—*Northwestern Lancet*.

SURGERY.

IN CHARGE OF

ROLLO CAMPBELL, M.D.,

Lecturer on Surgery, University of Bishop's College ; Assistant Surgeon, Western Hospital ;

AND

GEORGE FISK, M.D.

Instructor in Surgery, University of Bishop's College ; Assistant Surgeon, Western Hospital.

FEATURES DETERMINING PERMANENCY OF CURE IN RADICAL OPERATIONS FOR HERNIA.

A. J. Ochsner, Chicago : The permanent success following herniotomy depends upon a comparatively small number of practical points which must be observed in order to secure satisfactory results regularly.

1. The wound must heal primarily, because suppuration results in an abundance of cicatricial tissue, and this is most unstable.

2. The stitches must not be drawn tightly, in order to avoid pressure necrosis.

3. The edges of the wound to be united must be free from fat and other unstable tissues.

4. The wound should be supported by broad rubber adhesive plaster strips until healed.

5. The patient should be kept in bed two or three weeks.

6. After the operation abnormal intra-abdominal pressure should be eliminated by avoiding constipation, etc.

I. In inguinal hernia : (1) The entire sac should be removed. (2) It is especially important to remove all the loose tissue between the transversalis and internal oblique muscles on one side and Poupart's ligament on the other. (3) The upper portion of this canal should be closed with especial care. (4) In case of a long thin omentum, this should be resected.

II. In femoral hernia the canal through which the sac protrudes is a perfect ring, and, consequently, if the entire sac is removed, this ring will invariably close and there can be no recurrence. All meddlesome operations contemplating the closure of this ring cause a certain percentage of recurrences.

III. In ventral hernia following laparotomy : The original layers should be laid bare, and then the corresponding layers should be carefully united. The author

prefers deep silkworm gut stay sutures, to be tied after each layer has been united separately with chromicized catgut sutures.

IV. In umbilical hernia the ingenious operation first described by Dr. W. J. Mayo, of Rochester, consisting of an overlapping of the edges of the hernial ring from above downward or from side to side for a distance of one and one-half inches has given complete satisfaction.—*St. Louis Med. Rev.*

WHAT IS TRUE CONSERVATISM IN THE TREATMENT OF APPENDICITIS ?

M. F. Porter, Ft. Wayne, Ind., argues for the early operation and presents the following summary :

TIMELY OPERATION.

1. Immediate mortality less than 2 per cent.
2. Danger of hernia, nil.
3. Danger of bowel obstruction, slight, if not entirely absent.
4. Danger of recurrence, none.
5. No danger of secondary abscess.

CONSERVATIVE TREATMENT OR OPERATION ONLY WHEN OTHER TREATMENT FAILS.

1. Immediate mortality more than 10 per cent. of operated cases, and more than 2 per cent. of all cases attacked.
2. Danger of hernia considerable (50 per cent. of cases requiring large or long continued drainage).
3. Danger of bowel obstruction real. (Three cases have occurred in my own practice in late cases, and none in cases operated early).
4. Danger of recurrence 33 1-3 per cent. of cases not operated upon and more than 2 per cent. of cases treated by incision and drainage.
5. Secondary abscess not infrequent.

TREATMENT OF HEMORRHOIDS.

The various procedures for the surgical treatment of piles are taken up and briefly reviewed.

The so-called Whitehead operation is condemned as bloody and troublesome.

Ligature.—This is the oldest method, advocated by such men as Allingham, Ball and Van Buren.

The patient is prepared in the usual manner, the anus and scrotum, the bowels emptied, chloroform administered, and he is put on his left side. We divulse the sphincter, catch the pile with a pair of toothed forceps, draw it down outside of the anus, separate with scissors from skin or mucous membrane, and pass a ligature of strong braided silk tightly around it, making three or four knots. Each pile is treated the same way, then the parts are oiled with vaseline, returned above the sphincter, and a tight T bandage put on. The ligature cuts in about seven days, during which time there is considerable pain. Patient recovers in about three weeks.

Clamp and Cautery.—This method is very popular in America, used by such men as Gant and Kelsey. Operation is more difficult than the ligature; very important to have a properly made clamp. Gant's, in author's opinion, is best.

Prepare patient the same as for other operation, divulse sphincter, catch pile with a toothed forceps, put clamp at the base of the tumour. Cut off the hemorrhoid close to the clamp, and use cautery at dull heat. Be careful not to burn the skin, otherwise there will be a great deal of pain after the operation. When all the piles have been treated put on a T bandage, put the patient to bed, and move his bowels in three or four days.

There is no pain with the use of the clamp and cautery to speak of, the healing is more rapid than with the ligature, but there is danger of secondary hemorrhage.—Dr. G. Monroe, in *Cincinnati Lanc. Clinic.*

SUBMUCOUS LIGATION FOR HEMORRHOIDS AND PROLAPSE.

An experience of eight years with satisfactory results from the operation impel the author to publish it. Patient prepared the usual way, anaesthetized and sphincter divulsed; then a needle carrying moderate-sized kangaroo tendon is passed around the piles and drawn tight. Atrophy takes place after a few weeks. Advantages claimed:

1. There is no secondary hemorrhage.
2. There is no destruction of tissue.
3. Can be done as quickly as the clamp and cautery operation.

4. So far there has been no infection, nor fistula, abscess or fissure following the operation.

5. Pain is no greater than in other forms of ligation.

6. No stenosis.

For prolapse the operation is done the same way as for hemorrhoids, but if we find after three or four months that the amount of tissue included in the ligature is not sufficient, another series of ligature can be applied.—Dr. B. M. Ricketts in *Med. Rev. of Rev.*

SHOULD COLOSTOMY BE DONE FOR CANCER OF THE RECTUM ?

The writer mentions the various surgical means for treatment of this condition, and speaks of the disadvantages of colostomy.

Its advocates maintain that life is prolonged, pain lessened, hemorrhage prevented, and patient made more comfortable. Dr. Mathews dissents from this view of the matter, but first of all he emphasizes the fact that after operation the malignant spot still remains, and that of course colostomy means palliation, not cure.

It is argued that life is prolonged because we divert the fecal current and prevent irritation of the mass. But is that so? Does not the growth enlarge because of qualities that are inherent to it, and not because of irritation. Cancer of the breast continues to flourish and enlarge, though there is no external irritation.

As far as lessening the pain of a rectal cancer by a colostomy operation is concerned, that proposition does not appeal to the writer very forcibly. The pain of a carcinoma is sharp and lancinating when it exists, and entirely independent of external causes. Besides that, it is not a factor in many cases.

The claim that hemorrhage is prevented or much lessened is not regarded seriously, because the bleeding is not due so much to tears and rents in the cancerous mass by the feces passing over it as to the ulceration which goes right on when the cancer has reached a certain stage—colostomy or no colostomy.

That life is rendered more comfortable is by no means a settled certainty. Of course if obstipation exists due to, say stricture of the flexure or colon, then life may, indeed, be prolonged and death averted for a time by a

colostomy, but such a step does not prevent the exhaustion of the patient, which is dependent upon the disease itself.

CONCLUSIONS.

1. In a majority of cancers of the rectum colostomy is not admissible.

2. When growth is low down in the rectum and circumscribed excision is indicated.

3. Gradual dilatation of strictural portion is preferable to colostomy.

4. Colostomy is justifiable when there is total or nearly total occlusion due to growth very high up.

5. Opium is preferable to colostomy.—J. M. Matthews, in *N. Y. Lancet*.

PREVENTION OF ACUTE PERITONITIS FOLLOWING APPENDICITIS.

A. J. Ochsner, in the chairman's address before the Section of Surgery and Anatomy at the last meeting of the American Medical Association (*Journal of the American Medical Association*, June 22, 1901), reaffirmed his treatment of appendicitis. The wider experience of recent years has confirmed views somewhat at variance with those of many surgeons. The peristaltic motion of the small intestines is the chief means of carrying the infection from the perforated or gangrenous appendix to other portions of the peritoneum, thus changing a circumscribed into a general peritonitis. This can be prevented by prohibiting all food and cathartics, and by the prompt removal by lavage of such remnants of food as may be found in the stomach. In case food is required, it should be administered by enemata and should be given not oftener than once in four hours, and not more than four ounces at a time.

It is claimed that such a treatment, instituted early, will change a violent acute perforative or gangrenous appendicitis into a mild and harmless form. Cases of appendicitis with beginning general peritonitis can be generally carried through an acute attack by this method. In all cases gastric lavage should be practiced to prevent the absorption of the decomposing material from the alimentary canal.

The patient should be permitted to recover fully from an acute attack before an operation is performed, except in cases which come under observation in the first thirty-

six hours, or in those in which there is a superficial circumscribed abscess. Such a management of the cases as is here described does not protect the patient against a subsequent attack, and does not complicate the early removal of the diseased appendix before the septic material has extended beyond this organ. It is indicated in all intra-abdominal conditions in which septic material may be distributed through the abdomen by peristaltic motion—*Medicine.*

SPRING FINGER.

Noble Smith (*Clinical Journal*, May 1) says that "spring finger" (*doigt a ressort ; schnellender finger*) consists in a partial obstruction to free flexion or extension (or both) of a thumb or finger, occurring at one particular joint, the difficulty being presently overcome and the flexion or extension completed with a snap. The obstruction generally occurs at a metacarpo-phalangeal articulation, and is sometimes so persistent that the patient is induced to help the completion of flexion or extension by pressing upon the digit with his other hand.

Causes.—In the majority of the recorded cases rheumatism is said to have been present, in others gout. The affection has also been attributed to injury, such as hyper-extension. *Pathological condition.*—The fact that the obstruction occurs at one exact point, both in flexion and extension, indicates the existence of a fixed lesion, and contra-indicates the presence of a loose or pendulous body in the joint. In many of the recorded cases a nodule has been felt, apparently a thickening of the tendon at one point. Nelaton, Notta, Menzel and Hyrtl all held the view that such thickening existed and caused the obstruction which met with resistance in passing through the tendinous sheath, and Hyrtl and also Berger thought that this sheath might be narrowed. Carlier records two cases in which a node could be apparently detected by the finger of the surgeon, while upon dissection no thickening of the tendon was found, but "Leisering, of Hamburg, actually exposed a nodosity in the profundus tendon at the level of the point at which it entered the canal of the flexor sublimis, excised it, and cured the disease." In another case a fringe-like tumour was discovered "springing from the synovial covering of the flexor sublimis" (Anderson). An alteration in the shape of the articular surface of the joint has also been suggested as a cause, and this seems to be the case in a similar condition oc-

curring in the mid-phalangeal joint of the great toe in a young lady, a patient of the author's, who was also suffering from contraction of the plantar fascia. I relieved the contracted fascia by subcutaneous section, but do not expect this to do any good to the "spring toe." This condition in the toes has been noted before, especially in association with hammer toe, and is supposed to be due to a transverse ridge upon the surface of the proximal phalanx. Osseous excrescences, the result or not of rheumatoid arthritis, and spasm of muscles, have also been referred to by Carlier as causes. Roser and Lisfranc have suggested that some change in the tendon, involving a roughening or thickening, is the cause of the affection; and Schoenborn states that Bruns, Leisrink, Weisinger, Carlier and Lick have actually found circumscribed thickening of the tendon.

Reeves thinks that a thickening of the tendinous sheaths may be the cause, and points out that in the case of the thumb, the affection "seems due to a circum-articular inflammation of the tendinous sheaths, and especially at the region of the metacarpo-phalangeal joint. The groove in which the flexor longus pollicis runs is at this spot limited by the sesamoid bones, and bridged over by a firm fibrous structure, converting it into a canal, and it seems, anatomically, highly probable that the slightest thickening of the tendon in its synovial sheath would, at this spot, lead to obstruction in its motions." In the other digits, in which similar firm osteo-fibrous canals are strengthened by the transverse and crucial bands, he suggests that it is probable that the obstruction may be due, either to thickening of the tendons or to narrowing of the canal alone.

Steinthal found contraction of the lateral ligaments. In Schoenborn's case a strand of connective tissue crossed the tendons of the two flexors, and division of this strand gave relief.

It seems probable, says Noble Smith, that each of these different causes may exist in particular cases, but in the following instance the obstruction seems to have been due alone to constriction of the sheath.

Miss S —, aet. eighteen years, was brought to him on October 4, 1899. She had suffered from spring finger from the previous January. At that time she had been practising with a mandolin for three months, and suddenly, while dressing her hair, the ring finger of her left hand became affected at the meta-carpophalangeal joint, and had so continued ever since whenever she flexed or extended the finger. Her mother had been troubled with

the same condition in a slight degree for many years, the middle finger of the right hand being affected. The author could feel nothing abnormal in the tendon or its neighbourhood. Upon cutting down upon the tendon, no enlargement could be detected at any point, but upon passing a probe beneath the tendon sheath the passage was found to be very restricted, so that it was with difficulty that the probe could be made to pass. He inserted a blunt hook within the constricted sheath, and stretched it forcibly. The wound healed by first intention, and the affection was perfectly cured. Once only, about three weeks later, was there a slight jerk in flexion, but since then the movement of the digit has remained perfectly normal. In January, 1901, the finger was reported cured, except for slight stiffness in the early morning, which goes off after an hour or so.—*N. Y. Med. Jour.*

UNDER WHAT CIRCUMSTANCES (EXCEPT EMERGENCIES) IS IT DESIRABLE TO OPERATE IN CASES OF GALLSTONES FOR RADICAL CURE OR FOR RELIEF ?

By Dr. Maurice H. Richardson.—The author considers that inasmuch as the diagnosis of gallstones can be made only when they begin to offend (except, of course, during abdominal operations for other causes), gallstones should be removed either as soon as they begin to offend or at the most favourable period after their immediate ill-effects have had time to subside. By the most favourable moment he means that period of time when there is no infection of the gall-bladder to contaminate the field, no impaction in the common duct to increase the difficulties and dangers of dissection, and no jaundice to induce hæmorrhage or to impair the patient's power of recovery. In many cases the favourable moment follows recovery from the disturbances of a transitory biliary colic unattended by jaundice; in others it follows the disappearance of jaundice after passage of the stone; in others, the subsidence of fever and other signs of a biliary affection. In all cases of jaundice one should wait a reasonable time for that favourable moment, in the hope that the stone may escape from the common duct into the duodenum, and that bile may reappear in the stools.—*Boston Med. and Surg. Jour. and N. Y. Med. Jour.*

Therapeutic Notes.

ACUTE GASTRO-ENTERITIS.

In the treatment of cases of acute gastro-intestinal catarrh, due to indiscretions in diet, and attended especially with nausea, vomiting, diarrhoea and abdominal pain, good results are secured in the clinical service of Dr. Eshner from the employment of the following formula:—

R Ext. of hæmataxylon..... 2 drachms
Aromatic sulphuric acid..... 2 fluidrachms.
Camph. tinct. opium..... 3 fluidounces.

M. Sig. : A teaspoonful every three hours if the bowels are moved that often ; at longer intervals if the bowels are moved less often.—*Philadelphia Polyclinic.*

TO PREVENT MOSQUITOES BITING.

R Oil tar..... oz. 1
Olive oil..... oz. 1
Oil pennyroyal..... oz. $\frac{1}{2}$
Spt. camphor..... oz. $\frac{1}{2}$
Carbolic acid..... drams 2

M. Sig. : To be applied occasionally.

SCIATICA.

Richardson recommends :

Opium powder..... grains xii
Ipecac powder..... grains xii
Sodium salicylate..... grains 90
Cascara, extract fluid, q. s.

Make twelve pills and give one or two at a dose.

Jottings.

An old physician says that a decoction of quassia to which a little borax and glycerine has been added will remove lice and other parasites from the hair better than any other known remedy.

Bradbury recommends that when the bromides are to be used in insomnia that the bromide be combined with tincture of sumbul and tincture of hops, all in a vehicle of camphor water.

In cases of delirium tremens (*International Journal of Surgery*), when sedative drugs fail to give rest and sleep, a blister or mustard plaster applied to the back of the neck often has an excellent effect.

HINTS ON TYPHOID FEVER.

In hemorrhage use ergotin and digitalin. For insomnia and nocturnal delirium give morphine or codeine. For "fighting delirium" of the first stage give veratrine and tartar emetic. For "low muttering delirium" and weak heart give atropine. Kill the micro-organisms and render the stomach and intestines aseptic by giving zinc sulphocarbonate until the stools lose their odour—up to 100 grains daily. Calomel is useful in the first stage. If sweating is profuse, use hydrastin. For subsultus tendinum give strychnine. In later stages, with blood in the stools, give silver oxide. For pneumonic symptoms use sanguinarin. Leptandrin is useful in constipation. Bismuth subnitrate is useful in gastric irritation.—M. G. Price, *Wisconsin Medical Record*.

DRUGS TAKEN BY A NURSING WOMAN WHICH AFFECT THE NURSING.

Fisher, in his work, "Infant Feeding in Health and Disease," states that the following drugs have been found in milk.

The purgative principles of rhubarb, senna and castor oil, antimony, arsenic, iodine, bismuth, turpentine, salicylic acid, all bromides, all iodides, lead, iron, mercury, copaiba, garlic, cocaine, chloral, hyoscyamus, digitalis, atropine, ergot.

An unpleasant but harmless flavour is imparted to the mother's milk from the ingestion of onions, turnips, cabbage and cauliflower.

FOR BED SORES.

The *Clinical Review* recommends the application of an ointment containing 45 grains of zinc sulphate, 30 grains of lead acetate, 20 minims of tincture of myrrh, and sufficient petrolatum to make 2 ounces.

FOREIGN BODY IN THE EAR.

The rubber end of a pencil was extracted by teasing out the end of a small piece of twine, and giving this a good coating of glue, pushing it tightly against the India rubber, and packing it closely all around with cotton wool. This was allowed to remain in position for twenty-four hours, when there was firm cohesion, and not the slightest difficulty was found in withdrawing everything *en masse*.—Dr. Macaskie.

CORNS, TREATMENT.

Dr. E. L. Wood, of Dansville, N. Y., writes : " A radical cure for corns consists in paring the callosity as closely as possible without causing any hæmorrhage, then placing in the centre of the corn a very small drop of croton oil, and bandaging for twelve hours. Then remove the bandage and paint the corn with reliable cantharidal collodion ; a pustular bleb will result, in the formation of which the entire callosity, nucleus and all, will be raised without very much pain from the tissues beneath, and can be easily removed. The process should be conducted under the care of a surgeon to insure prompt sterilization of the part after the callus is removed. Healing has always been rapid, not requiring more than three or four days, with no liability to recurrence unless the foot is afterward abused. I have treated active, working patients without a loss to them of more than a half-day of time."

HEADACHES OF CHILDHOOD.

One should not, says the *Clinical Review*, too readily conclude that an error of refraction exists. Faulty diet, irregular meals, constipation and insufficient out-door exercise often cause headaches. Removal of these causes and perhaps the administration of 10 or 20 drops of tincture of nux vomica, before meals, are indicated.

URINOUS SMELLS.

Cases in which there is a dribbling of urine in the bed, attended by the usual disagreeable urinous smell, can be made less obnoxious by pouring some turpentine upon the sheets, where it will not touch the patient's skin. This counteracts the odour to a remarkable degree.—*Internat. Jour. Surgery*.

CARIOUS TEETH.

Freemeyer recommends placing in the aching void a pledget of cotton soaked in a mixture of $\frac{1}{2}$ drachm of oil of cloves, $1\frac{1}{2}$ drachms of chloroform and $\frac{1}{4}$ grain of codeine.

Nothing equals pilocarpine as a means of restoring the secretion of urine when suppressed.

Urea is now being advocated as a remedy for tuberculosis. Dose, 4 grams daily, by mouth or hypodermically.

Pilocarpine in Membranous Croup.—Wertram (*Amer. Med.*) describes five cases of true croup, in which prompt relief and recovery followed the use of pilocarpine hydrochlorate, gr. 1-48, to 1-24 hypodermically. The ages of the patients ranged from thirteen months to ten years.

NEW METHOD OF MAKING MILK DIGESTIBLE.

Dr. C. E. Tucker, of Joppa, Ill., says: "In all those paring milk where other methods have not proved useful. A pint of milk is gently warmed. Into it is dropped, very slowly and with constant stirring, about 20 minims of dilute hydrochloric acid. The milk should be stirred until it cools. In this way a very fine flocculent coagulum is produced, floating in the whey, which is easily accessible to the digestive secretions, while the whole fluid has lost somewhat of the flat and cloying taste which makes it unacceptable to so many. It will be noticed that milk prepared in this way differs from the various wheys in the highly-important particular that the casein is retained and used, instead of being separated out as a distinct product, while it avoids the bitterness of pancreatinized milk.—*New York Medical Times*.

TO PREVENT PAIN BY ACRID STOOLS.

Dr. C. E. Tucker, of Joppa, Ill., says: "In all those cases where it becomes necessary to administer purgatives and cholagogues I advise my patient to anoint the anus with vaseline or lard when he prepares for a stool. This prevents the acrid dejecta from coming in contact with the anal tissue, a circumstance that produces the most intense burning pain and tenesmus. This simple procedure has been so effective in preventing the agonizing sensations produced by the passage of acrid stools in my own person and those of my patients that I have concluded to pass it on that others may have the benefit thereof.—*Medical Summary*.

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All communications for the Journal, books for review, and exchanges, should be
addressed to the Editor, Box 2174, Post Office, Montreal.

Editorial.

COLLEGE OF PHYSICIANS AND SURGEONS, PROVINCE OF QUEBEC.

The first meeting of the new Board of Governors took place in the City of Quebec on the 25th of September. This Board was elected under the Amended Act which places the election entirely in the hands of the profession, the old method by proxy being entirely discarded. The election now takes place by Districts, a ballot paper being sent to each qualified voter, who fills it and returns it to the returning officer, such an officer being appointed for each district. The ballots had all to be returned to this officer not later than the 4th of September, and at 5 o'clock p.m. on that date the ballots were opened in the presence of two witnesses and the results recorded.

The following shows the result of the elections :

DISTRICT OF MONTREAL.

Division No. 1. St. James and St. Mary's Wards, Montreal.—Registered practitioners, 116 ; qualified to vote, 84 ; votes recorded, 69. Drs. Marsolais and R. C. Laurier elected. Residence, Montreal.

Division No. 2. St. Lawrence and St. Louis Wards, Montreal.—Registered Practitioners, 146 ; qualified to

vote, 93 ; votes recorded, 75. Drs. R. Boulet and J. H. Chartier elected. Residence, Montreal.

Division No. 3. St. Antoine and St. Lawrence Wards, Montreal.—Registered Practitioners, 221 ; qualified to vote, 147 ; votes recorded, 81. Drs. J. A. Macdonald and G. A. Brown, elected. Residence, Montreal.

Division No. 4. Counties of Joliette, L'Assomption, Montcalm and Berthier.—Registered Practitioners, 41 ; qualified to vote, 26 ; votes recorded, 19. Dr. J. O. Beaudry. Residence, St. Roch d'Achigan.

Division No. 5. Counties of Terrebonne, Two Mountains, Argenteuil and Laval.—Registered Practitioners, 48 ; qualified to vote, 29 ; votes recorded, 22. Dr. L. A. Fortier, elected. Residence, St. Vincent de Paul.

Division No. 6. Counties of Ottawa and Pontiac.—Registered Practitioners, 72 ; qualified to vote, 26 ; votes recorded, 20. Dr. E. L. Quirk, of Alymer, elected.

Division No. 7. Counties of Beauharnois, Chateauguay, Huntingdon, Soulanges and Vaudreuil.—Registered Practitioners, 64 ; qualified to vote, 35 ; votes recorded, 22. Dr. Charles Marshall, Huntingdon, elected.

Division No. 8. Counties of Brome, Shefford and Missisquoi.—Registered Practitioners, 64 ; qualified to vote, 38 ; votes recorded, 25. Dr. J. D. Pagé, Waterloo, elected.

Division No. 9. Counties of Chambly, Iberville, Laprairie, Napierville and St. Johns.—Registered Practitioners, 45 ; qualified to vote, 27 ; votes recorded, 18. Hon. Dr. Girouard, Longueuil, elected.

Division No. 10. Counties of St. Hyacinthe, Bagot and Rouville.—Registered Practitioners, 47 ; qualified to vote, 36 ; votes recorded, 29. Dr. E. Choquette, St. Hilaire, elected.

Division No. 11. Counties of Richelieu, Yamaska and Vercheres.—Registered Practitioners, 38 ; qualified to vote, 20 ; votes recorded, 17. Dr. E. H. Prevost, Sorel, elected.

Division No. 12. County of Hochelaga, East.—Regis-

tered Practitioners, 66 ; qualified to vote, 56 ; votes recorded, 50. Dr. G. E. Baril, Montreal, elected.

Division No. 13. County of Hochelaga, West.—Registered Practitioners, 71 ; qualified to vote, 56 ; votes recorded, 35. Dr. Cypriot, St. Cunegonde, elected.

DISTRICT OF QUEBEC.

Division No. 1. Quebec Centre.—Registered Practitioners, 51 ; qualified to vote, 29 ; votes recorded, 27. Drs. A. Vallée, M. D. Brochu and C. R. Paquin, Quebec, elected.

Division No. 2. Quebec East, West and St. Sauveur.—Registered Practitioners, 37 ; qualified to vote, 24 ; votes recorded 17. Drs. Jobin, F. X. Douin and J. Marcoux, Quebec, elected.

Division No. 3. Levis and Lotbiniere.—Registered Practitioners, 25 ; qualified to vote, 14 ; votes recorded, 11. Dr. J. E. Ladriere, Levis, elected.

Division No. 4. Quebec, Portneuf and Montmorency.—Registered Practitioners, 41 ; qualified to vote, 15 ; votes recorded 10. Dr. M. Brophy, St. Foye, elected.

Division No. 5. Charlevoix, Chicoutimi and Lake St. John.—Registered Practitioners, 22 ; qualified to vote, 13 ; votes recorded, 10. Dr. L. E. Beauchamp, Chicoutimi, elected.

Division No. 6. Beauce and Dorchester.—Registered Practitioners, 31 ; qualified to vote, 19 ; votes recorded, 17. Dr. T. Fortier, St. Marie, Beauce, elected.

Division No. 7. Counties of Bellechasse, Montmagny and L'Islet.—Registered Practitioners, 26 ; qualified to vote, 14 ; votes recorded, 13. Dr. L. M. Moreau, L'Islet, elected.

Division No. 8. Counties of Kamouraska and Temiscouata.—Registered Practitioners, 24 ; qualified to vote, 11 ; votes recorded, 9. Dr. F. J. Langlois, Trois Pistoles, elected.

Division No. 9. Counties of Rimouski, Matane,

Gaspe, Bonaventure and Magdalen Islands.—Registered Practitioners, 26 ; qualified to vote, 15 ; votes recorded, 8. Hon. Dr. Fiset, Rimouski, elected.

DISTRICT OF THREE RIVERS.

Division No. 1. Counties of Drummond, Arthabaska and Megantic.—Registered Practitioners, 39 ; qualified to vote, 26 ; votes recorded, 18. Dr. L. J. O. Sirois, St. Ferdinand de Halifax, elected.

Division No. 2. Counties of Three Rivers and Champlain.—Registered Practitioners, 22 ; qualified to vote, 8 ; votes recorded, 5. Dr. L. P. Normand, Three Rivers, elected.

Division No. 3. Counties of St. Maurice, Maskinonge and Nicolet.—Registered Practitioners, 32 ; qualified to vote, 24 ; votes recorded, 21. Dr. L. A. Plante, Louiseville, elected.

DISTRICT OF ST. FRANCIS.

Division No. 1. County of Sherbrooke.—Registered Practitioners, 17 ; qualified to vote, 12 ; votes recorded, 7. Drs. P. Pelletier and J. O. Camirand, Sherbrooke, elected.

Division No. 2. Counties of Stanstead, Compton, Richmond and Wolfe.—Registered Practitioners, 54 ; qualified to vote, 29 ; votes recorded, 13. Dr. F. McMorine, Richmond, elected.

Analyzing the above, we learn that there are in this Province 1,484 Registered Practitioners, of whom 926 were qualified to vote, but only 668 recorded their votes. The qualification required to be allowed to vote was to clear as to their annual dues to the College up to the 1st of July last. A protest against the election of the Hon. Dr. Fiset in No. 9 Division, District of Quebec, was made on the ground that the returning officer had opened the ballots as they were received, instead of waiting the time named by law. The protest was referred to a Committee,

who reported that the protest was good. A new election was ordered. In No. 2 Division, District of St. Francis, a new election was ordered, as Dr. McMorine, the Governor elected, had died suddenly on the day of his election. The Report of the Treasurer of the College was read and adopted. It showed a balance on hand of \$4,813.93. The following were elected officers of the College for the ensuing three years: President, Dr. E. P. Lachapelle (re-elected); vice-president for Montreal, Dr. Robert Craik (re-elected); vice-president for Quebec, Dr. A. Vallée; treasurer, Dr. Albert Jobin (residence, Quebec City); secretary for Montreal, Dr. John A. Macdonald; secretary for Quebec, Dr. C. R. Paquin. On the evening of the 24th September the Governors, guests of the St. Louis hotel, invited their fellow governors, who were guests at the Chateau Frontenac, to a smoking concert at the former hotel, where a very pleasant time was passed, and the new governors made the acquaintance of each other. There is no doubt that the new Board enters upon its duties with the support of the electors. It will, however, have to give a good record, or, when the governors return three years hence to their constituents, they may fail to be re-elected. We hope and believe that the present Board of Governors will continue to do the good work of the previous (reform) Board. If so, no reasonable member of the profession can ask for more.

SUCCESS IN THE PRACTICE OF MEDICINE.

The *Texas Courier-Record of Medicine* for July, 1901, says: "Dr. Osler, of Baltimore, is perhaps the most admired physician in the United States, and his addresses to young men are always received with applause and appreciation. The lines given below are a part of an address given before the New York Academy of Medicine lately, and are a rebuke to those men who have, by staying constantly at home, come to believe that they have no use for post-graduate study; that they are as well posted as any physician or surgeon, and that it is a useless expense

for them to go to medical centers and devote time and money to studying under their inferiors.

“How shall a young man prepare himself to rise in the medical profession to a position in which his brethren lean upon his judgment and rely upon his decisions?” This is the question with which Professor Osler opens an address before the New York Academy of Medicine. In laying down the general lines of work, he reminds the anxious youth that the fame of a prominent consultant at sixty is oftentimes accompanied by a treadmill routine of work and a never-ceasing weight of responsibility that makes him look back to the days of his freedom, when he could follow his bent untrammelled and undisturbed, with as much envy as he formerly looked forward to the days of his reputation. Joy comes in the climbing, and while living laborious days, happy in the growing recognition that he is receiving from his colleagues, the young physician is realizing the best that the profession has to give. He recommends a year abroad in Paris or Berlin if the language is known, but excellent opportunities are to be had in London for the broadening of his views and enabling him to escape the besetting sin of most young physicians, that intolerant attitude of criticism toward everything outside of his own circle and his own school. But he need by no means remain narrow-minded, nor lack perspective in his views if he cannot afford the time and money for a trip abroad. Some of the ablest men in the profession have found their opportunities in country practice and have built up wide reputations in small towns. He should visit the hospitals and clinics of the larger cities yearly. Short vacations spent in visiting various universities and hospitals from the Chesapeake to the St. Lawrence will stimulate to new ideas and give him that combination of conservatism and independence that comes only by travel. In solving the problem of ways and means the first few years, it may be necessary for the young physician to settle in the country, using every economy in saving for further study and travel. At the end of a few years, when he needs a rest and change, let him invest \$600 in a summer semester

in Germany, working quietly at one of the smaller universities and absorbing the spirit of patient investigation that is the genius of the German mind. Another year let him spend three months in Paris; lay schemes in advance, and it is surprising how often the circumstances will fit them.

"It would be folly to suppose that every bright and energetic young physician can attain that widest of reputations in which his name becomes familiar to the laity of this continent and to the profession of Europe. That is not the point he is striving for and should he attain it he should find himself at the mercy of an exacting public, with an irksome and enormous practice, and not time to keep abreast of, and much less lead the thought of the times. A professional reputation in even a restricted area affords an excellent income and a satisfactory life-work to those who care to be masters of their own fate and not public slaves. With the present overcrowding of the large cities and the keen competition among physicians, the tendency will be more and more to drive the younger men into the small towns which have hitherto sent their best talent to the city and received no adequate return. There are throughout the country hundreds of small hospitals whose clinical opportunities are wasted for the lack of younger men who will do with their might whatsoever their hands find to do. These are well worth the consideration of the graduates who are just ready to begin their practice and who realize that to settle in one of the large cities means a desperate struggle for a livelihood. With capital for the promised co-operation of a well-established physician or with a grim bulldog tenacity, the young doctor can live through the educational years of his practice and begin to reap the benefit in the forties. But for the young men whose only capital is brains, and whose only backing is his belief in his own powers of work, the same town affords an opportunity to do work that is just as valuable to the community, and to build up a reputation that is of far more help to his professional brethren of the far-away great consultants.

"At the end of twenty years, when about forty-five

years of age, the man who has worked wisely and well should have a first-class reputation in the profession, and a large circle of friends and patients. He will probably have precious little capital in the bank, but a very large accumulation of interest bearing funds in his brain pan. He will have gathered a stock of special knowledge which his friends in the profession will appreciate, and they will begin to seek his counsel in doubtful cases and gradually to lean upon him in times of trial. He may awake some day, perhaps quite suddenly, to find that twenty years of quiet work, done for the love of it, has a very solid value."

Personal.

Dr. Patterson (M. D., McGill, 1898), passed a year as House Surgeon at the Montreal General Hospital and six months in the same capacity of the Montreal Maternity. He then passed a year with Dr. Vidal (M. D., Bishop's, 1890), as one of his assistants at Belt, Montana. He has decided to enter the Medical Service of the American Army, and has passed the entrance examination. One hundred and thirty-five candidates presented themselves, of whom only 19 were successful, and Dr. Patterson stood at the head of the list. He was our Clinical assistant at the General Hospital for some months, and we predict for him a brilliant career, in which he has our best wishes.

Dr. John McCrae has been appointed resident Pathologist to the Montreal General Hospital.

Dr. Donald Hingston, son of Sir William Hingston, has been appointed Medical Superintendent of the Hotel Dieu Hospital, Montreal.

Sir William Hingston and Dr. Deeks have just returned from brief visits to England.

Dr. William Osler, of the Johns Hopkins Hospital, Baltimore, has given \$1,000 to the endowment fund of the library of the Maryland Medical and Chirurgical Faculty.

Dr. Burgess, Superintendent of the Protestant Hospital for the Insane, Verdun (Montreal), has returned after a vacation of several months, part of which was passed in Europe.

Dr. Laberge, Medical Health Officer for the City of Montreal, and Lecturer on Hygiene in the Faculty of Medicine, University of Bishop's College, left on the 14th of September to attend a Health Congress to be held in Glasgow, Scotland. Dr. Laberge will return early in November.

Dr. Helen MacMurchy has been appointed to the resident staff of the Toronto General Hospital. This is the first time that a Lady Physician has received such an appointment.

Dr. Stephenson (M. D., McGill, 1858), of Iroquois, Ont., who has been seriously ill for a year past, shows considerable signs of improvement, and his friends are hopeful that his life may be spared for some years yet.

Dr. Euchariste Sirois (M. D., Bishop's, 1883), of Denver, Colorado, was in Montreal the middle of September, and visited his old professors. We are glad to know that he has prospered in his profession, and occupies an excellent position among his *confreres*.

Dr. Montizambert, of Ottawa, Ont., the head of the Canadian Quarantine Department, was present at the Congress on Tuberculosis held in London, Eng., the end of July.

Dr. Osler, of Baltimore, went to Europe June last.

Dr. Meuburn, of Toronto, celebrated his sixtieth wedding day on the 25th of July last. The doctor received his license to practice in 1838.

Dr. Tomkins (M. D., Bishop's, 1901), who received an appointment as one of the resident Medical Officers of the Western General Hospital, has, owing to poor health, been obliged to resign. He went to Europe in July, as surgeon of one of the Beaver Line of Steamships, and returned somewhat improved, but not quite well. His friends hope that rest in his country home will bring him back to perfect health.

PUBLISHERS DEPARTMENT.

Whether Mr. George Horton's new story, "The Tempting of Father Anthony" (A. C. McClurg & Co.), is to take a place among the "100,000 copies" successes, is yet to be seen, but the fact remains that in the second week of its publication the demand for it was so great that its publishers were entirely unable to supply it, and second and third large editions followed each other rapidly on the presses. The book has not been pushed by sensational methods of any kind, and the interest in it is an entirely healthy one inspired by the unusual merits of the story.

Mr. Seton-Thompson's books set people to thinking about the attitude of modern civilization towards wild animals. "Lady Lee," a remarkable book published by A. C. McClurg & Co., seems destined to serve the same purpose for our more familiar domestic pets. The author was the late Hermon Lee Ensign, who will be remembered for his activity in humane work. So strongly did he feel on the subject that every story in his book carries a powerful appeal for a larger humanity toward brute creation. "Lady Lee" marks another step in the forward movement inaugurated by the publication of "Black Beauty" some years ago.

SANMETTO IN FREQUENT MICTURITION AND NEPHRITIS FOLLOWING LA GRIPPE.

I used Sanmetto in a case of a man seventy-eight years of age recovering from La Grippe, troubled with frequent micturition and chronic nephritis. The result of the treatment was completely satisfactory. Have used it since in cases of irritable bladder with pleasing results.

Benecia, Cal.

A. BLODGETT, M.D.

A WORD OF PRAISE.

It gives me pleasure to say a kind word for Sanmetto—it surely deserves praise. I have been using Sanmetto in all affections of the genito-urinary tract, and it is by far the most reliable and *unfailing* agent of its class known to me in thirty-one years' experience as a medical practitioner. *Wrat* Sanmetto!

Scott, La.

H. D. GUIDRY, M.D.

THE BRYAN RATIO OF 16 TO 1.

S. F. Wehr, M.D., of Belleville, Ill., late surgeon to U. S. A., writing, says: "For upwards of ten years I have been using and prescribing Sanmetto for almost all kinds of genito-urinary troubles. I have never found anything its equal. In chronic cases of gleet it cannot be excelled. In all kidney troubles its action is fine, relieving the backaches, etc. I could not get along without keeping it upon my dispensing shelf. Hundreds of empty bottles are in my cellar I would exchange for filled ones at the Bryan ratio of 16 to 1. So much for Sanmetto."

SANMETTO IN HYPERTROPHIED PROSTATE AND IN IRRITABILITY OF BLADDER.

I put Sanmetto to a very thorough trial, thinking as I prescribed it, "now I will see." I had a case, an old gentleman suffering from hypertrophied prostate of long standing—had been giving "elix, saw palmetto comp.," etc.—substitutes of Sanmetto I take it, but with little benefit. Had advised castration as only method of relief. But to my pleasure, I may say surprise, I noticed some little benefit following administration of a bottle of Sanmetto. Bought another bottle, 8 3/4, gave that, and am giving it now with *decided* benefit. I gave another bottle of it to a patient who had been taking huge doses of kissengen and vichy salts for obesity, on advice of another physician, until he had produced an irritation of his bladder almost beyond endurance. Two days' treatment with Sanmetto relieved him nicely, and a tablespoonful per day now controls it. I shall in future use only the "real thing." No more substitutes of Sanmetto for me.

Elkhorn, Mont.

EDGAR I. BRADLEY, M.D.

CANADA MEDICAL RECORD

DECEMBER, 1901.

Original Communications.

THE MECHANICAL EFFECTS OF INJURY.

By ALEXANDER MACDONALD, M.D., C.M.

Medical Superintendent Western Hospital, Montreal.

The following case is worthy of note, as illustrating an unusual form of injury, namely fracture of the skull, by direct violence applied to the top of the head, with fracture of the sternum and separation of the thyroid cartilages by the impact of the chin against the breast.

On the 14th October, 1901, a patient, A. P., was brought to the Western Hospital in an unconscious state. He had met with an accident through the boom of a derrick falling vertically on his head, some seven minutes before his admission.

Upon examination, he was found to have three scalp wounds, one over the left eyebrow, a second over the parietal bone, 2 inches above the ear, and a third a little behind the vertex. All the wounds were bleeding freely and each was about three inches in length. The pulse was 88, temperature 97 and the respiration 24. The left pupil was narrowly contracted, the tongue lacerated, and a bloody froth exuded from the mouth. There was some loose crackling when the larynx was handled, but no external wound was observed. The lungs and heart were in the normal condition.

The wounds were sutured and dressed, hot water bottles applied, enemata given, and, these failing to move the bowels, Croton oil was administered by the mouth to no

effect. The patient being still unconscious was supported by nutrient enemata. Twenty-four hours after the accident the left lung showed a dullness over the base, and in 80 hours from admission the patient died.

At the autopsy, performed by Dr. Macphail, the scalp tissues were found infiltrated in the region of the wounds, all of which were well healed. The skull cap showed a separation along the line of the squamous suture, more marked upon the left side, but no definite fracture could be demonstrated. The dura mater was adherent, and on either side of the longitudinal sinus, over the brain, was a thin layer of dark clotted blood. The brain, on the right side, in the posterior part of the temporal lobe, had a small diffuse hemorrhage. The base of the skull was not involved and no damage to the cord or vertebra was observed.

Upon making an incision in the median line, from the chin downwards, a wide extravasation of blood was observed over the larynx and upper part of the sternum which extended to all the tissue at the root of the neck and deeply into the apex of the lungs.

When the sternum was removed it was found that the manubrium was separated from the gladiolus along the line of union, and the thyroid cartilages were divided along their anterior borders. The anterior mediastinum was filled with blood, which manifested itself in the lungs as a broncho-pneumonia. The left base of the lung was consolidated.

It would appear that the squamous sutures were separated by the impact driving down the parietal bones upon the temporal, that the larynx was rent asunder by the chin compressing it against the vertebral column, and the sternum was fractured by the indirect force transmitted through the chin.

This case is interesting as revealing very clearly the mechanical effects of injury.

December 1, 1901.

Selected Articles.

ARTERIOSCLEROSIS.

There is a wide difference in opinion as to the meaning of the term arteriosclerosis. Atheroma is used synonymously by some writers, but it would be wise if a distinction were made between the two conditions, and the term atheroma restricted to the end process of arteriosclerosis. The disease of the arteries begins by a deposit in the middle and internal coat, which ultimately leads to a fatty degeneration, to which the term atheroma should be applied. There is still much obscurity in the relation of these changes. Does sclerosis always precede the fatty degeneration? What relation do sclerosis and atheroma bear to miliary aneurism? These questions must be left to the future. One thing is certain: the amount of work that has been done on the arterial system is very much less than its importance justifies. It is one of the chief causes of death if we only include those cases of arterial rupture which are most obviously associated with the condition; if we add to the list the deaths that may fairly be attributed to vascular disease, such as contracted kidney, heart lesion, etc., it furnishes a mortality far in excess of all the acute diseases. The difficulty in many cases is in deciding whether the changes in the vessel wall are primary or secondary. In Bright's disease it is possible that the vascular sclerosis may result from the defective elimination due to the inflammation, or the kidney changes may be due to the increased vascular pressure. It is possible that the practical application of Gaertner's tonometer may do much to clear up the obscurity which now exists regarding vascular degeneration.

As a rule, arteriosclerosis comes on in advanced life, and the old saying that a man is as old as his arteries is quite as true as most maxims. Occasionally extensive sclerosis is noted in early youth, but instances are exceptional. In the fourth decade cases become more frequent, and in the fifth decennium the condition is common. The process in some degree is always present in the aged, though the examples that are given of men who are active mentally and physically after fourscore show that the process may be long delayed. Bismarck and Gladstone are often mentioned, but one of the most striking examples was Schaumburg, the celebrated general of

William III., the hero of a hundred battle-fields, who, when over eighty years of age, commanded the army in Ireland under circumstances of privation, pestilence and anxiety such as might well have sapped the resolution of a younger man.

The causes of arteriosclerosis are quite as obscure as any chapter in the etiology of medicine. As has already been pointed out, it is difficult to distinguish cause from effect. There can be no extensive arteriosclerosis without a rise in blood pressure, and this may lead to changes in the organs. Toxemia in some form is unquestionably the cause of the majority of cases. It may have its origin in defective elimination, or be the product of the acute or chronic infections. Syphilis is a frequent cause of arteriosclerosis. Whether there is a difference between the sclerosis of syphilis and that due to other causes is an unsettled fact. In some cases there is an endarteritis that may be termed specific, and over which specific treatment exerts considerable influence. These cases usually occur within ten years of the primary infection. Syphilitics suffer from early arterial changes strikingly like those which occur in the aged, and which do not yield to specific treatment. We may conclude that syphilis acts as a predisposing cause of arteriosclerosis, as well as having a distinct endarteritis, the latter alone yielding to antisyphilitic remedies.

Defective elimination is the direct cause in the majority of cases. Apoplexy is one of the commonest results of arteriosclerosis, and this has been commonly ascribed to plethora and a full habit. This dictum must be modified, as the figures show that a large number of those suffering from apoplexy are spare. A red face and sanguine temperament are not specially indicative of apoplexy, only in so far as they indicate a too-liberal consumption of food. As a rule the spare individual of bilious temperament suffers more degeneration, providing he is a liberal feeder, than does the one who accumulates flesh. Uric acid has become the fashionable scapegoat. If we mean by this simply defective elimination, we shall have a broader conception of the underlying principles. This furnishes the explanation of the development of arterial disease in the aged: the eliminative organs become less efficient, and there is an accumulation of waste products which excites a proliferation in the connective tissue of the smaller arteries.

The acute diseases are charged with causing arteriosclerosis, but they play a secondary rôle. Scarlet fever, typhoid and other infections probably do not last long

enough to cause extensive arterial disease, but they frequently initiate an inflammation of the kidneys which leads to extensive vascular degeneration.

If the causes of arteriosclerosis are obscure, the symptoms are still more uncertain. Frequently, cases live for years with torturous temporals, arcus senilis and a hard pulse with a curved radial. In other cases these symptoms are almost absent, and yet they suffer from arterial rupture. This shows the distinction between atheroma and sclerosis; the latter may exist in high degree and for a long time without rupture, but if fatty degeneration and softening occur the wall gives way. The distribution of the sclerosis determines to a large extent the symptoms. As a rule the smaller arteries are most involved, but it is rare that the aorta escapes. All branches of the arterial system are not equally affected, and the extent of the process in the arteries of the different organs is subject to wide variations. The large arteries may be extensively affected with a marked alteration in vascular pressure.

If the tonometer of Gaertner fulfils its expectations valuable light will be thrown upon arterial disease. In it we have an accurate and rapid instrument for measuring vascular pressure. This has heretofore been lacking, the only substitutes being the finger of the sphygmograph. The latter is very unreliable. The finger readily appreciates a change in the character of the pulse, but the conditions are so variable under which the artery is felt that at best only an approximate idea of vascular pressure can be reached.

The chief clinical signs of arteriosclerosis are increased arterial tension, palpable thickening of the arterial wall, accentuation of the second aortic sound, and hypertrophy of the left ventricle. The most important is the non-valvular hypertrophy of the left ventricle with accentuated second sound. The next most important is high arterial tension, but this may be temporary; if it is continuously found over a considerable period it is strongly indicative of arteriosclerosis. Auscultation of the posterior surface of the chest furnishes the best index of an accentuated second sound; if it is heard distinctly between the seventh dorsal vertebra and the spine of the scapula it is strongly confirmatory of arterial contraction.

The prognosis is usually unfavourable, but it depends on the extent to which the heart, brain or kidneys are involved in the degeneration. The disease once set up is apt to be progressive, because the conditions that give rise to it are irremediable. Patients should be frankly told

the condition of affairs and warned against a persistence in habits or methods of life that favour the progress of the disease. Much is to be gained by a recognition of the condition as a disease *per se*. The profession has been slow in recognizing the condition clinically, notwithstanding the frequency with which it is observed post mortem.

In treatment, much depends upon a regular habit of life. These patients should avoid emotional strain. Exercise should be regular, but not excessive. Alcoholics and tobacco should be interdicted. Above all the food supply should be reduced to a diet which secures metabolic equilibrium, but nothing should be taken beyond this. The interdiction of meats on the theory of a uric acid diathesis is false, but patients should be given a due proportion of proteids, carbohydrates and fats. It is possible to obtain from milk and eggs all of the nitrogen that is needed; if these agree with the patient he may obtain them from this source, but there is no evidence that they are better than meat. The chief difficulty is in reducing the total quantity of the food in liberal feeders to an amount required for the nutrition; on such a diet the patients often complain that they are being starved.

The medical treatment in the complicated cases depends upon the underlying conditions. Before there has been extensive damage to the vital organs the treatment must consist of a recognition of the cause; if faulty nutrition, this must be corrected by diet; if toxemia is present an effort must be made to eliminate. If syphilis is recent, a vigorous antisymphilitic course must be instituted.

Temporary relief may be obtained with nitroglycerine. It is surprising what large doses can be taken without disagreeable symptoms. The dose is to be regulated by the idiosyncrasy of the patient. Iodide of sodium in small doses, five to seven grains three times a day well diluted, continued for months, has been useful, but no medicinal treatment is of avail without careful attention to the personal hygiene of the patient.—Harold N. Moyer, M. D., in *Medicine*.

SUGGESTIONS BEARING UPON THE DIAGNOSIS AND TREATMENT OF FRACTURES AT THE LOWER END OF THE HUMERUS.

By THOS. W. HUNTINGTON, M. D., San Francisco.

A somewhat extensive experience in the management of fractures at the lower end of the humerus, together with frequent opportunities afforded me for the inspection of cases in the hands of capable, painstaking colleagues,

has left me with the conviction that the results obtained by the accredited methods of treatment are far from satisfactory.

Every general surgeon has upon his list one or more cases illustrative of this point. Too often pain, deformity and limited function cripple the patient and humiliate the attendant. It matters little that the patient has been forewarned as to what have been regarded as inevitably disastrous consequences of his injury, nor does the approval of able counsel as to the line of treatment adopted free his mind from the impression that the result ought to have been more satisfactory. With the facilities now at hand is it possible to establish and maintain a higher standard of excellence in the treatment of elbow-joint fractures? The time has come when surgeons should answer this question definitely. From our large hospitals, wherein the pace is set so far as surgical achievement is concerned, there should issue an edict setting forth the rules of practise governing these cases, thereby approving or condemning methods which now prevail.

Fractures in this locality suggest a multiplicity of lesions, whose pathology and individual peculiarities have been adequately described, demonstrated and illustrated. Their limitation is between the supra-condylar line and any imaginable communication of the lower end of humerus. Their thorough understanding depends upon an accurate determination of three points: 1. The number, relation and direction of fracture lines. 2. The extent and character of displacement or dislodgement of fragments. 3. The relation of the fragments to the ulna and radius.

It is absolutely essential in considering these points, that appeal be had to the radiograph for a satisfactory interpretation of existing symptoms. No longer can the visual and tactile senses be implicitly relied upon for every link in the chain of evidence. It is true that the determination of the existence of a fracture, together with its general features, is a comparatively easy task. To predicate its exact limitations, to draw an accurate clinical picture, to identify each individual fragment, and give to it its true value in relation to prospective deformity or impairment of function, is most difficult of accomplishment. Surgeons will continue to inspect and palpate, to compare and manipulate. The three bony prominences of the elbow will be appealed to for such evidence as they may afford. The condyles will be scrutinized for mobility, crepitation, or faulty relations, but in most cases the evi-

dences will be incomplete and altogether inadequate until one or more shadow pictures have been carefully inspected and interpreted. Aside from diagnostic measures, successful treatment of these fractures depends upon three factors: 1. Perfect readjustment of fragments. 2. Permanent maintenance of normal relations. 3. As early passive movement as is consonant with safety.

It is not my intention to advocate any conventional plan in dealing with this most perplexing problem. Flexion or extension of the forearm as a universal law are questions that interest me very little, if at all. My contention is that the surgeon must be certain of his initial adjustment, and as certain that proper relations are maintained throughout the progress of the case. This point seems not to have received the attention it clearly merits, and to this fact can be attributed many disastrous results. What right has the surgeon to assume that faulty relations will not be re-established within a few hours or days subsequent to the first dressing? And in the presence of such a state of affairs can he be justified in deferring corrective measures until the integrity of the joint is hopelessly impaired? On the contrary, the more rational plan is to make the initial adjustment as perfectly as may be in the presence of the diagnostic radiograph, with the patient under an anaesthetic. The position of the forearm will be negotiated so as to conform to the requirements of the case. A light dressing will then be adjusted, eliminating all thought of the maintenance of the fragments by direct pressure. For this purpose, plaster of Paris has advantages superior to any formal splint. The corrective position should be carefully maintained by an intelligent person until the cast has become self-supporting. Within twenty-four or forty-eight hours the initial work should be checked up by a second radiograph. If there still remains a fault in adjustment or alignment, a second or a third attempt should be made for its correction.

I am fully aware of the fact that the general practitioner whose life is spent in the isolated communities of the interior can not be expected to maintain, nor is he often within easy reach of an X-ray laboratory. That must be conceded to be his misfortune and not his fault. But it must be remembered that the work done in his line is coming to be regarded as constituting a specialty, and it is to be hoped that X-ray laboratories conducted by photographers or other competent workers will be established with profit in most of our interior towns.

The matter of early resort to passive movement may be dealt with in a few words. Assuming that correct positions have been maintained for five or six days, the joint surfaces will admit of considerable play without disarrangement of fragments or unwarrantable pain. In pursuance of this plan I have usually removed the splint on the fifth day. Movement is effected through a small arc. If the forearm occupy the semi-flexed position I carry it up toward a right angle through an arc of ten or fifteen degrees. If this has been done without appreciable violence, fixation in the new position is secured as before. In this manner the effort is renewed, and the position changed every second or third day, with successive increase of motion. There are occasional cases which seem wholly incorrigible so far as manipulative measures are concerned. Here the possibility of an unfortunate result under ordinary measures becomes an assured fact. Under these circumstances I should have no hesitation in converting a closed to an open fracture under proper precautions, ascertain the discrepancy, and wire or suture the obdurate fragments. The thought to be borne in mind in this connection is that if such a step be taken at all it must not be delayed. The greatest possible benefit to be derived from operative treatment can only be realized before efforts at repair have progressed to any appreciable extent.

It was not my intention this time to enter upon any detailed description of special fractures or their sequels, but I am certain that you will be interested in one phase of the subject, which seems not to have been generally understood.—“gunstock deformity,” or, according to the more recent nomenclature, “cubitus varus,” a condition or deformity resulting from this class of fractures more often than is generally supposed. About twenty years ago Dr. Oscar H. Allis, of Philadelphia, called attention to this deformity, and subsequent authorities have dwelt upon it at considerable length. It consists in a permanent adduction of the forearm resulting in obliteration of the obtuse angle, which normally is made by the axis of the humerus on the one side and the radius on the other. This has come to be known as the carrying angle, enabling a weight to be suspended from the extended arm without striking the leg of the bearer. This condition usually exists without interference with rotation or flexion of the forearm. It has generally been ascribed to a sliding upward of the internal or sliding downward of the external condyle. Very recently, in a most elaborate article, in the *Annals of Surgery* for September, 1900, Stinson has demonstrated

that this deformity is associated with transverse supra-condylar fractures of the humerus. In one of my own cases occurring in a child of seven years this condition occurred in mild form after a complete separation at the epiphyseal junction. Logically it would seem that the obliteration of the carrying angle may be attributable to any of the foregoing conditions, that is, fracture of the internal or external condyle, fracture above the condyles, or separation of the epiphysis.—*Occidental Medical Times*.

CEREBRAL ANEURISM, WITH REPORT OF A CASE.

The condition generally considered necessary for the development of aneurism of the systemic arteries, aside from traumatism, is a weakening of a limited portion of the arterial wall. This defect is the result of a local arteritis. The predisposing factors leading to this inflammatory process differ materially, in the case of the cerebral arteries and the arterial system of the other parts of the body. The latter are due to syphilis, gout, alcoholism, atheroma, thrombosis and embolism. Cerebral aneurism is caused almost exclusively by thrombosis and embolism; of these two, embolism is by far the most frequent. Whether the primary lesion is the result of a local inflammatory process in the wall of the artery, due to a diseased condition of its inner coat, or to the irritation of a thrombus or embolus, the pathological condition amounts to the same thing in the end. To whatever cause the inflamed arterial wall may be due, it results in a weakness of that portion involved, so that under the pressure to which it is subjected it gives way, permitting a bulging of the wall at the spot affected. This constitutes the initial pathological changes of all aneurisms. The character of the aneurism, whether it be sacculated or fusiform, depends upon the area of the arterial wall involved in the inflammatory process. If only one side of the wall be affected, the dilatation takes place at this point, for here the resistance is less than at other portions, with resulting sacculated aneurism. If the inflammatory process is due to the plugging of a vessel by a thrombus or embolus, the pressure being equally distributed over the arterial wall, the inflammation extends over the area subjected to such pressure. In this event the walls of the artery give way around its whole circumference simultaneously, resulting in a fusiform aneurism. It does not necessarily follow that all aneurisms arising in consequence of the plugging of the lumen of an artery are of the fusiform variety, for the pressure of the plug may be

unequally distributed and cause the aneurism to assume the sacculated form. I only contend that in the majority of cases arising from thrombus or embolus, the character of the aneurism is fusiform.

Nearly all aneurisms occurring under the age of 40 years are caused by embolism. In the majority of such cases the patient has suffered at some previous time from endocarditis, the vegetations arising from which have been dislodged, constituting an embolus. Owing to the fact that the current of blood pursues a straighter course into the left carotid artery than it does into the right, the embolus more frequently lodges in the left cerebral hemisphere. The order of frequency of the arteries involved, according to most writers, is middle cerebral, anterior cerebral, posterior communicating, anterior communicating, and the posterior cerebral.

On account of the necrobiotic process which takes place in the substance of the brain in consequence of the obstruction of a cerebral vessel, embolism of this locality is of far more serious import than that of any other part of the body. If the embolus is small enough to pass beyond the anastomosing branches of the cerebral arteries, it lodges, of course, in the terminal twigs, in consequence of which the blood supply to the area fed by such vessel is completely cut off. The process of softening now begins and goes on to the complete destruction of all the tissues to which the obstructed artery is distributed. Coincident with the destructive process going on in the brain substance, the embolus irritates the inner coat of the blood vessel, weakening its resisting power, and eventually causes the development of a small aneurism which sooner or later ruptures, permitting a hemorrhage to take place into the substance of the brain. The first hemorrhage is not necessarily fatal, as the opening in the aneurismal sac is sometimes minute, and after a small quantity of blood is poured out, the hemorrhage may cease spontaneously. A patient with a cerebral aneurism is doomed. A time comes, sooner or later, when a rupture of sufficient magnitude occurs to flood the surrounding parts, to plough up the healthy tissues, or break into the softened area and find its way into the ventricles of the brain.

The symptoms of embolism are sharp and sudden. In the midst of apparent health the patient is seized with violent headache, dizziness and a confused state of the mind. Temporary unconsciousness supervenes, and the patient falls to the ground. Hemiplegia occurs in the

majority of cases, and aphasia in nearly all. General or unilateral convulsions sometimes occur. If the patient recovers from the attack, the hemiplegia and aphasia persist indefinitely or for a considerable length of time. The mental symptoms which follow in the wake of cerebral embolism depend upon whether the cortical substance is involved. If the cortex is not supplied by the obstructed artery, there may be no derangement of the mental functions either as a result of the primary attack, or of the necrobiotic process which takes place later.

Through the courtesy of Dr. Charles E. Leithead, who had charge of the patient and who kindly invited me to participate in the post-mortem examination, I am enabled to report the following case :

F. L. R.—, aged 15, of healthy parentage, had an attack of endocarditis at the age of four years, from which he never fully recovered. On November 20, 1900, while working in the field, he was suddenly seized with violent headache, staggered, and fell to the ground. Shortly after falling he vomited several times. He was taken home and placed in bed, where he remained two weeks. For several hours he was in a semicomatose condition. Immediately after the attack it was noted that both pupils were dilated, but the right more than the left. This persisted for several days. There was marked ptosis of the right eye ; myopia and double vision, lasting for a period of two months. He had aphasia, not being able either to read, write or choose a word. This lasted about three weeks. There was no hemiplegia or convulsions at any time. After a period of about three weeks he was able to get out of bed, but he never regained his former health. He walked with a staggering gait and complained of a feeling of debility. Three months later there was a slight recurrence, which presented many of the symptoms of the former attack. It passed off, however, within a few hours, leaving him in much the same physical condition. On the evening of April 28, 1901, he complained of severe headache and went to bed of his own accord at 6.30 p.m. Before retiring, he passed about three pints of limpid urine. Began vomiting about eight o'clock, which continued during the night. Became aphasic at 2 a.m. on the 29th. Right pupil widely dilated ; ptosis of right lid. Pulse-rate and respiration were in no way affected. Although he could not speak, he seemed to retain consciousness nearly to the end. He died at 11.30 a.m., April 29.

A post-mortem examination was held at 5 p.m. on the day of death. The body was spare and somewhat emaciated. Lungs, liver, spleen, kidneys and alimentary tract

were normal. The heart was hypertrophied, the mitral valves presenting a mass of vegetations. A few vegetations were to be seen on the endocardium and the aortic valves. The calvarium was opened and the brain removed. At its base was a firm blood-clot. The surface of the brain presented nothing abnormal. It was placed in Orth's fluid until sufficiently hard, when sections were made to discover the source of the hemorrhage. The third, fourth and left lateral ventricles were filled with blood-clot. The right hemisphere presented nothing abnormal. On the left side, just beneath the cortex in the ascending frontal gyrus and near the longitudinal fissure, a fusiform aneurism of one of the terminal branches of the middle cerebral artery was found. Its diameter was about one-eighth of an inch, and its length about one-half inch. Immediately beneath the aneurism was a cavity about one inch in diameter filled with necrotic brain tissue and blood-clot. This cavity extended into the roof of the left lateral ventricle. By carefully washing the aneurism, a minute opening in its wall was found through which the blood escaped. The flooding of the ventricles was now explicable. The aneurism had ruptured and poured its contents into the softened cavity, and from thence into the lateral ventricle. From the lateral ventricle it passed through the foramen of Monroe into the third ventricle, and from the third ventricle through the aqueduct of Sylvius into the fourth ventricle.

As to the formation of the aneurism, there can be no doubt that it was caused by the dislodgment of a particle of vegetation from the mitral valves of the heart. This occurred at the time he had his first attack in November, 1900. The second attack, two months later, can be attributed to a slight hemorrhage from the aneurism which occurred at this time, but which was spontaneously arrested. That his mental functions were not in any way interfered with, after his recovery from the first attack, is explained by the fact that the cortical cells in the neighbourhood of the softened area were not involved as a result of the embolism or of the softening process. Many microscopic sections of the cortex in this locality showed normal cells throughout. Of course, the axis cylinders of all the neurons which passed through the softened areas were destroyed. Among these were undoubtedly many of the association neurons connecting the centres concerned in written and spoken language, as well as the motor neurons supplying the right eye; hence the persistent aphasia and the motor difficulty of the right eye. The

absence of hemiplegia is to be explained from the fact that the tissues to which was distributed the occluded artery did not happen to contain any important motor contracts. —H. H. Stoner, M. D., in *Medicine*.

Progress of Medical Science.

MEDICINE AND NEUROLOGY

IN CHARGE OF

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LABORATORY METHODS IN DIAGNOSING TYPHOID FEVER.

It would seem that the diagnosis of the commonest fever in the temperate regions of the United States would be comparatively simple. One has only to recall the findings in relation to the typhoid epidemic that prevailed in our camps during the Spanish-American war to learn that the recognition of typhoid fever is by no means as easy as is generally believed. There seemed to be among those who had charge of the troops a deplorable ignorance of the general clinical type of the disease. We are not now speaking of the doubtful or complicated cases, but those in which the typical symptoms of typhoid fever were fairly marked. The merest tyro in medicine could not mistake the continued fever with the evening rise, the rose spots, and gradual onset, with gurgling in the right iliac fossa, for anything but typhoid. But a large number of the cases begin in an atypical fashion. In some cases the temperature may not be marked, or if so, it may present the continued type or be higher in the morning than in the evening. There may be extreme pain in the abdomen, with distention, simulating a peritoneal or other abdominal inflammation. The anomalous cases of typhoid are probably the most frequent, and it is in these that laboratory methods are of the greatest value.

The most important of these tests is that of agglutination, known as the Widal. Unfortunately, it is hardly ever present before the beginning of the second week. The findings with this test are not conclusive. If it is not found when persistently looked for, it is strong evidence

that the disease is not typhoid, as it is present in 95 per cent. of cases. Hence the negative Widal reaction is of value only in excluding typhoid. The positive reaction does not show conclusively that the disease is typhoid, as the reaction may persist months and years after the person has had typhoid fever. Unfortunately, the Widal test cannot be carried out at the bedside and is not within the reach of the general practitioner. Many of our boards of health have undertaken the application of the test.

The diazo-reaction is a test which is easily performed, but unfortunately it is of comparatively little differentiating value. It is obtained in cases of septicemia, tuberculosis, and in other conditions which may be confounded with typhoid fever. It is the best method by reason of its simplicity and the rapidity with which it can be carried out, and should be made, as it may throw valuable light upon the case.

The leucocyte count is one of the most valuable differential diagnostic points in typhoid fever. In uncomplicated typhoid the leucocytes are always diminished, the average being five thousand or less. Taken in connection with the clinical symptoms, the diazo and the Widal test will often enable one to differentiate typhoid fever from suspicious abdominal conditions that would suggest the advisability of operation. The leucocyte count is of no value in determining the diagnosis of certain fevers in which there is no increase in the leucocytes. It will not distinguish between malaria and typhoid, for neither of these is accompanied by a leucocytosis; but it will enable one to differentiate with a considerable degree of accuracy between a general septicemia or peritonitis and typhoid fever. If marked leucocytosis is present, as high as ten thousand or over, the disease under consideration is probably not typhoid, and is certainly not an uncomplicated typhoid.

The typhoid bacillus has been found in the blood, urine, and feces of typhoid patients, and with the help of a man trained in bacteriological research and an excellent outfit, this is a direct means of making the diagnosis. Unfortunately, they are far beyond the average clinician; even in the best hospitals they are so difficult of application that little is done with them except in original research. Every year a few cases of unrecognized typhoid pass through our best hospitals and appear on the autopsy table. How frequently is typhoid unidentified in private practice. Much oftener than is generally supposed.—Edit. in *Medicine*.

TANNOFORM IN THE NIGHT SWEATS OF PHTHISIS.

A. Nolda, in the *Berliner Klinische Wochenschrift* of July 1, 1901, gives the history of eight cases of phthysical night sweats which were treated with tannoform. In seven of the cases there was a disappearance of the symptom, and in the eighth case there was improvement. In consequence the appetite improved, and it was no longer necessary to give atrophine, the omission improving the general condition. In two cases there was slight burning and itching of the skin.

Tannoform, which is the condensed product of tannin and formaldehyde, was used in the form of a powder, one part of tannoform to two of talcum. The powder was rubbed into the breast and portions of the body which commonly give the greatest amount of transpiration.—*Medicine.*

INEBRIETY.

C. L. Dana, New York, gives further details regarding the development of the inebriate. In his discussion he shows the rather definite limitations of life of the sot and the periodical inebriate, the maximum capacities of the human body for alcohol, the methods of prevention, the necessity of a special law for the commitment and care of inebriates, and the treatment, temporary and permanent, of this class. He has found the acute effects of hard drinking to be distributed about as follows : Simple intoxication, 60 per cent.; delirium tremens, ending in recovery, 36 per cent.; delirium tremens, with complications ending in death, 4 per cent. These acute conditions occurred in persons suffering from what may be in general termed inebriety, which took the form of periodical inebriety in about 10 per cent.; chronic or neurasthenic inebriety in 20 per cent.; ordinary drunkenness or besottedness in 70 per cent. The agencies for preventing and lessening the injury done by alcohol consist in : 1. Teaching. 2. Control of the sale, making it impossible to secure impure alcohol and difficult to secure even good alcohol, and especially difficult for those to whom it is poison. 3. Avoidance of transmission of degeneration through the marriage of alcoholics. 4. Personal supervision of those who become inebriates. The treatment is considered under the classification of the ideal and the practical. The former is supervision of the case in an institution, ensuring absolute abstinence from alcohol in all forms for at least one year, and further ob-

servation for two years longer. Under present conditions all kinds of makeshifts have to be resorted to, the most common form being the "cure." These cures have all the same basis, consisting in the use of strychnine, atropine and apomorphine or some other nauseant, combined with tonics, laxatives, full feeding, and the psychical influences exercised on the patient by the procedures of the cure.

ON THE HOME TREATMENT OF PULMONARY TUBERCULOSIS.

L. Weber, New York, states that by physical exploration, including bacteriologic examinations, we can generally soon arrive at the positive diagnosis of the early stage of pulmonary tuberculosis. So long as we have to go without a sure and readily made serum diagnosis for incipient tuberculosis, let us give a suspicious case the benefit of the doubt, and rather treat the patient as if he were infected with tubercle than give him medicine for latent malaria. The first order given in a case of fresh febrile tuberculosis is that the patient should go to bed and stay there until his temperature is practically normal. Rest cure at the outset, to be repeated at intervals according to the circumstances of the case, and careful nursing are essential for successful treatment. The patient's room must be well above the ground, must admit plenty of light and air, and be easy to ventilate. Food, selected according to the condition of the case, is given every two or three hours in small quantities, or in the shape of meals four times a day as soon as the patient is able to take and digest them. In the early stages, and at all times, it is of moment to keep down high temperatures, for which acetanilid, phenacetin and antipyrin are advised. In fresh cases, with general irritability and harassing cough, remedies appropriate to a case of acute bronchitis with fever and cough should be given in preference to creosote or similar drugs. When the acute symptoms have subsided, or when they are absent, creosote is prescribed. For the class of patients who show phthisical habitus have poorly developed muscles and weak hearts, cardiac tonics, such as strychnine, with or without digitalis and quinine, are indicated. Whenever a stage of improvement has been reached where it appears timely and opportune to send the patient out of the city to continue the plan of treatment it should be done. The author has treated one hundred and ten private cases, according to the above outlined plan; for every one creosote was ordered as the remedy to be taken steadily and for a long

time, and at least four-fifths of them took it without objection or disgust ; about one-fifth could not or would not take it, but had carbonate of creosote in capsule or carbonate of guaiacol in powder in sixteen-grain doses t. i. d. instead. Fifty of the whole number have been restored to health and twenty are greatly improved, while thirty have died of phthisis pulmonalis.—*St. Louis Medical Review*.

AORTIC REGURGITANT MURMUR.

H. W. Syers claims that in at least 95 per cent. of the cases in which aortic reflex occurs the diastolic murmur is heard much more loudly at the second left interspace close to the sternum than in the position usually assigned to it—namely, the second right interspace. This accounts for the fact that aortic reflex murmurs are constantly overlooked. He does not claim that the second left interspace close to the sternum is the locality at which it is most loudly heard, but that it is more distinct there. The point at which the murmur is loudest is almost invariably the middle of the sternum, and it is frequently very loudly audible just above the xiphoid cartilage.—*St. Louis Medical Review*.

THE HEART IN TYPHOID FEVER.

Bacaloglu points out that cardiac complications of typhoid are not confined to myocarditis, since there also exist typical cases of endocarditis and pericarditis. The anatomic changes in myocarditis vary in character and intensity. In mild cases there is a granular condition of the protoplasm, a coagulation exactly comparable to that produced by heat. This is sometimes accompanied by multiplication or hypertrophy of the nuclei. In severe myocarditis there is an increase of sarcoplasm, disappearance of transverse striation, and vacuolization of the muscular fibres. In grave cases there may be found the segmentation described by Landouzy and Renault. The inter-cellular cement softens and there is actual fragmentation. The importance of the latter lesion is minimized by the writer. Fatty degeneration is exceptional. Arterial changes are important. They consist mainly in an endo-and peri-arteritis. Venous lesions are rare.

The prognosis is grave when the number of pulsations go above 110. But, before this acceleration, muffling of the first sound can be noted. The first sound is prolonged and weakened, but the cardiac rhythm is not at first altered.

Sometimes a slight systolic murmur is observed. Embryocardia succeeds the weakening of the first sound. It is characterized by identity of the first and second sounds and equality of the long and short pauses similar to that of the fetal heart. The pause becomes thready and rapid. This condition may be only transitory, or it may be accompanied by collapse and death.

The galop bruit may be met with. It evidences weakness and dilatation of the right ventricle.

Arterial tension is lowered in typhoid fever, and reaches its minimum at the beginning of convalescence. Arrhythmia occurs occasionally, usually along with the galop bruit. It is the rule at the moment of convalescence.

Typhoid pericarditis may exist alone; more often it accompanies endocarditis. The pericarditis may be purulent, or dry, or with effusion. Clinically, it is revealed by friction sounds at the middle and base of the heart.

Endocarditis comes on about the second week, and ordinarily is localized to the mitral and tricuspid orifices. murmurs. Pain is rare.

The general treatment of typhoid depends mainly upon the baths, and they should not be suspended unless the cardiac lesion is marked. In endocarditis and pericarditis they should be stopped. Local revulsives are useless in myocarditis. Digitalis is best given in fractional doses. It is hardly as good as caffeine, which may be given hypodermatically. Sparteine and ergot may also be employed. Artificial serum acts well in raising arterial tension and increasing renal elimination.—*St. Louis Medical Review.*

THE SEMEIOLOGICAL VALUE OF THE EXAMINATION OF THE BLOOD IN CANCER OF THE STOMACH.

Hartmann and Silhol (*Rev. de Chir.*, No 2, 1901) have recently communicated to the Société de Chirurgie de Paris the results of some researches made on the blood of surgical patients. In the course of these researches they have been convinced that in cases of cancer of the stomach, an examination of the blood is more likely to prove useful than a chemical investigation of the gastric contents. The authors, in their studies, made a particular investigation on two questions: (1) the degree of anaemia characterized by diminution of the quantity of hemoglobin, which may depend on the reduction of the number of globules, or on the reduced proportion of hemoglobin in their contents:

and (2) the existence of leucocytosis. The presence of cancer of the stomach, it is held, is indicated by a well-marked association of decided anaemia with decided leucocytosis. Anaemia is marked less by the diminished proportion of the hemoglobin in the globules, than by (1) a diminished proportion of the hemoglobin in the globules; (2) by irregularities in the form of the globules, indicating a profound modification of the elasticity and texture of the red globules; and (3) by inequality in the size of those globules that are not misshapen. The leucocytosis, to have any value as a symptomatic sign, should be very marked, and should affect especially the mono-nucleated cells.—*British Medical Journal*, March 23, 1901.

CARDIAC DRUGS AND THE VASOMOTOR TREATMENT.

The paper by Prof. Gottlieb, of Heidelberg, has been specially translated for the *Medical Press and Circular*, July 24, 1901.

Seeing that circulatory disturbances have for result to determine an unequal distribution of blood in the organism, the object of cardiac and vasomotor treatment must be to restore the equilibrium thus destroyed.

Paralysis of the blood vessels, due to the insufficient central innervation of the vasomotor centres, causes the blood to flow into the abdominal vessels, while the peripheral vessels and those of the skin and brain are depleted; the pulse is feeble, and the heart only receives an inadequate supply of blood during diastole. This variety of circulatory inadequacy occurs in cases of intoxication resulting from the use of narcotics and during attacks of infectious disease. In such cases the exhibition of cardiac drugs would generally be without effect, since it is not the strength of the heart that is lacking, but that the quantity of blood which it receives is insufficient. But the blood, withdrawn from the action of the heart and accumulated in the dilated vessels of the abdomen, can be brought back into the general circulation by the use of drugs acting upon the vasomotor system, through which they give rise to contraction of the vessels in the splanchnic area. To obtain this result, strychnine, camphor and caffeine are prescribed. Much the same result may be obtained by irritating the skin, or by making cold applications.

Cardiac drugs are used for the purpose of restoring the energy of the heart. They increase the volume of systole, and in this manner tend to remedy the defective distribution of the blood in the organism, which is the

usual consequence of most complaints of the heart, accompanied by a diminution in the energy of this organ, an accumulation of blood in the venous system and anaemia of the arteries being the inevitable result of incomplete systole and of insufficient ventricular diastolic aspiration.

Digitalis acts chiefly by strengthening the energy of the heart; its vasomotor effect is of secondary importance. From experiments made on the heart of a frog, it was long since observed that the cardiac systole increases, and that the energy of the ventricular contraction is strengthened under the influence of *digitalis*. Recently we have succeeded in making the same experiment on warm-blooded animals in whom the heart was protected from the variable resistance of the general circulation. We are, therefore, no longer compelled to base our conclusions on experiments made upon frogs. By isolating the cardiopulmonary circulation, following the example of François-Franck and of E. Hering and Bock, we are enabled to study the action of *digitalis* on the heart, independently of its effect on the vessels; we can also make use of a separated heart, in which the functions are maintained by an artificial circulation through the coronary vessels. I have by the aid of a special arrangement I satisfied myself that, an increase in the volume of the systole takes place, and after a dose of digitoxin, the energy of the ventricle is trebled or quadrupled.

The increase in the volume of the systole is caused more particularly by a more complete contraction of the cardiac muscle; the ventricle emptying itself with greater facility. This action is the more important in connection with an ailing heart, since a failing ventricle becomes less capable of getting rid of its contents. Moreover, the slight diminution in the frequency of the pulse, due to the diminution of the pneumo-gastric, which occurs in addition to the more strictly cardiac effect under the influence of *digitalis*, has a beneficial influence on the cardiac function. The diastolic aspiration of the blood of the veins into the cardiac cavity is also favourably influenced by this slowing of the pulse. Consequently the efficacy of *digitalis* becomes very evident, in proportion as this slowing effect is manifested. The maximum effect of this treatment corresponds to complete expansion of the ventricles during diastole, plus a maximum contraction during systole. The heart in this way pumps a greater quantity of the blood which is contained in the over-filled veins, and propels it into the bloodless arteries.

All drugs acting in a manner analogous to digitalis have, in addition to the action on the heart, a vaso-constricting effect, as I was able to demonstrate anew in my recent experiments. But this vasomotor action is accessory, from a therapeutical point of view ; the important factor in combatting venous stasis is an improvement in the cardiac function. The vascular contraction may be of some utility in the sense that the blood is thereby driven out of the congested portal system into other parts of the vascular system, for, in the first instance, it is principally on the portal vein that the vascular action of digitalis is produced ; but, if this contraction exceeds certain limits, its beneficial effect is transformed into one very inimical to the organism, since, in consequence of the rise of arterial resistance, the work of the heart is needlessly increased.

Camphor does not only act on the heart indirectly through the vasomotors, it also directly increases the irritability of the cardiac muscle. Its action on the normal heart is little marked ; on the other hand, I was able to convince myself, in the case of the rabbit, that under certain pathological conditions, when the heart ceases to beat, it is possible by the application of camphor to combat this momentaneous stoppage and to save the rabbit's life.

Caffeine has a direct effect on the heart, but one quite different from that of digitalis, nor can it be considered as a substitute for the latter. As a matter of fact, it does not increase the functional energy of the healthy heart in cases where the blood tension is normal, but it strengthens the action of the cardiac muscle in the presence of a pathologically high arterial resistance ; it may also be useful in cardiac complaints accompanied by a high aortic tension.

Alcohol has not a direct influence over the heart ; it acts indirectly on this organ by diminishing the peripheral resistance, when, in consequence of an exaggerated aortic tension, the left ventricle can no longer completely empty itself. In this case it causes the vessels to dilate, and the resistance to diminish, and as a result whereof the heart carries on its work under more favourable conditions, and is enabled to furnish a greater amount of work.

The various cardiac drugs, it will be seen, act on the circulation in quite a different manner to those which act in the vasomotor system. In spite of the difficulties that present themselves in the study of so complicated a mechanism, we may hope that by associating clinical observation with experimental pharmacology, we may succeed, little by little, in gaining a deeper insight into the nature of the circulatory troubles which present themselves

to our notice, and to choose with more discernment the treatments capable of combatting these troubles and of restoring the equilibrium.—*The Virginia Medical Semi-Monthly*.

NOTE ON A PRE-ANTHEMATOUS SIGN OF MEASLES.

After a mention of Koplik's sign, of the minute, round, discrete, bluish-white specks on a reddish or diffuse red background in the mouth, the author states that in many cases no distinct red spots are to be seen, but the white specks look like particles of salt lying on the surface of the reddened mucous membrane. These white spots are adherent, but may be rubbed off, leaving a smooth, pink surface. The buccal mucous membrane, not that of the palate, is the place where their presence should be sought.

These spots appear from twelve hours to three days before the skin exanthem. They generally begin to fade as the skin eruption becomes well developed. He has found this sign of great value in arriving at an early diagnosis of measles. He is unable to say from his personal experience whether these spots are absolutely pathognomonic.

He does not agree that all cases without the spots are cases of rotheln, but he is convinced that when spots are present, they invariably indicate the existence of morbilli.—*Bristol Medico-Chirurgical Journal*.

THE HYDRIATIC TREATMENT OF INCIPIENT PULMONARY TUBERCULOSIS AT HOME.

H. Meffert (*Deutsche Med. Woch.*, May, 1901) says that the value of this method of treatment has been universally recognized, and describes a simple means of carrying it out in the homes of patients. The bed is first covered with a woollen blanket sufficiently large to envelop the patient from head to foot, and on top of this are spread two smaller blankets, one long enough to reach from the chin to the hips, and the other from there to the feet. Over these a sheet is spread, and the patient is wrapped up in the manner customary for a dry pack, lying quiet until thoroughly warm. The coverings of the upper part of the body are then loosened, and the arms and trunk rapidly sponged off by one or, preferably, two attendants, and the wrappings restored without drying, after which the lower extremities are similarly treated, the whole procedure not taking more than one minute. In this, which is virtually

a wet pack, the patient is allowed to remain till he feels perfectly warm and dry again, when he is released, and is stood up by the bedside with his feet in a tub of warm water. The entire body is then showered with water from an ordinary watering-pot for a period of not more than thirty seconds, is rapidly dried, and dressed.

The treatment should be carried out twice a day, the first time in bed before rising in the morning, and the second time between four and six in the afternoon. The preliminary period of warming up is very necessary, as thereby all subsequent shock is prevented. Considerable care is also required in determining the temperature of the water to be used for the sponging and showering in each case.—*Medical Record*, June 8, 1901.

GLYCOSURIA AND DIABETES OF DYSPEPTIC ORIGIN; THEIR SYMPTOMS AND TREATMENT.

The author remarks that when in cases of dyspepsia glucose has been found in the urine, it has invariably been attributed to an excess of sugary matter taken with the food. The author regards this form of glycosuria as being the result of gastric and hepatic dyspepsia, and as quite unconnected, on the one hand, with alimentary glycosuria, and, on the other, with true diabetes. This dyspeptic glycosuria comes and goes with great irregularity; the sugar may be absent one day and present the next. When present, too, the quantity varies extremely, but is never large. It is a very important point that the sugar is not passed all the day long; it is wanting in the morning urine, and is, in fact, only present in the urine of digestion. Not seldom albumin accompanies the sugar in these cases; out of 48 observations albumen was detected in no less than 39. The quantity of the urine is slightly increased and the density somewhat varied, being on an average 1.025.

The patient suffering from dyspeptic glycosuria does not present any of the symptoms of diabetes, and the glycosuria is nearly always discovered accidentally. As in true diabetes, all the metabolic processes are in excessive activity, and hence in these cases also the amount of nitrogenous waste is much increased. The *symptoms* presented by this form of glycosuria, though differing greatly from those of diabetes, are yet sufficiently marked to admit of ready detection. The patient complains of increasing appetite, of distension of the stomach and of pain after food; the liver is not seldom somewhat enlarged. Neur-

asthenic symptoms are sometimes met with, together with the passage of phosphatic urine; profuse sweating may occur; skin lesions are not seldom present, and many patients complain of cardiac troubles. The general condition offers no characteristic features. Some patients become stout, others complain of wasting; anaemia is rarely observed. The diagnosis can only be made by observing and comparing all the various physical signs and symptoms. The identification of this form of digestive glycosuria does not in any way make less certain the recognition of a form of the complaint to which the author gives the name of *dyspeptic diabetes*.

These cases suffer from severe gastric symptoms, and at the same time from those of diabetes, and the inference is that the diabetes is the result of the dyspepsia. But it is admitted that this form of glycosuria is very apt to pass into true diabetes. This form of diabetes, when correctly treated, is, the author remarks, capable of being completely cured, and to effect a cure the author strongly recommends the employment of a rigorous milk diet. As regards the *treatment* of dyspeptic glycosuria, a milk diet is also advocated. As regards drugs, the author recommends antipyrine and bicarbonate of soda, opium or codeine, arseniate of soda or valerian.—*The Post Graduate*.

EUCAINE IN SPINAL ANALGESIA.

Dr. Jedlicka, of Prague (*Sbornik, klin.* Vol. II., No. 3), has tried cocainization of the spinal cord in seven cases, and has had unpleasant experiences with the drug. He therefore replaced it with eucaine (alpha-eucaine hydrochlorate). This he employed in 93 cases of laparotomies of various kinds; operations on the lower extremities, perineum and scrotum, and in various gynaecological operations with very excellent results.

The injection was always carried out with technical precision, and there occurred, after four minutes, an analgesia beginning at the feet and proceeding up the body in segments. In seven to ten minutes it had reached the navel or even the breast. The extension of the analgesia does not depend upon the dose, but upon the diffusion of the eucaine in the cerebro-spinal fluid. This can be favoured by placing the patient in an appropriate position, employing a proper amount of the solution, and diminishing the pressure of fluid within the canal. It is, therefore, well to allow a little of the fluid to escape before making

the injection ; at least as much **as the amount** to be introduced should be allowed to **run out**.

The **phenomena** that occur after the injection may be **divided** into three phases. The first is the stage of analgesia, which usually begins four minutes after the injection, and is heralded by formication and numbness of the lower extremities. In some cases paralytic symptoms appear also, such as a feeling of weight and heaviness in the legs ; but very rarely is there complete paralysis. The heart may be slowed or increased, but is otherwise, save in the aged normal. In fact, this method of anaesthetization had better be avoided in old persons. Other symptoms noted were nausea and vomiting (only when the stomach was empty), paresis of the sphincter ani, dermographism and erection of the penis.

During the second stage the patient feels quite well, and is in normal condition.

The third stage begins three to six hours after the injection, and is characterized by headache and increase of temperature. After three hours these symptoms cease ; in exceptional cases they last until the next day. The author believes that they appear in consequence of reaction of the membranous envelopes of the cord. If the headache is very severe the patient can be relieved by lumbar puncture and the removal of a little cerebro-spinal fluid. The relief is absolute ; and the headache can be prevented by letting a little of the fluid of the cord escape before making the injection. This procedure has some influence upon the rise in temperature also.

Experiments with the injection of indifferent fluids in dogs have proved that spinal analgesia cannot be effected with them, especially as no destructive action upon the cord must be caused.

The author recommends spinal analgesia, as effected at Maydl's Clinic, in the very heartiest manner. It is an excellent method, that entails no serious danger. It is of inestimable value in patients suffering from heart and lung disease, to whom ordinary narcosis would be extremely dangerous.—*The Medical Times and Register*.

ACUTE NEPHRITIS IN CHILDREN.

W. M. Powell, in "Diseases of Children," says the treatment consists of rest in bed between blankets, milk diet, water drunk freely, and, at the start, a calomel purge followed by a mild saline, such as liquid citrate of magnesia. The body may be sponged with warm water, or

a warm bath given once or twice a day, precautions being taken to avoid chill. A non-irritating diuretic is the citrate or bitartrate of potassium, which may be given in water with lemon-juice and sugar. The severe cases with dropsy, fever and suppression of urine must be treated actively by dry cups on the lumbar region, by purgation with an active saline (magnesium sulphate), and by free sweating by a hot-air bath or hot pack. A daily irrigation of the colon with normal salt is of value. If uremic symptoms set in, bleeding is the most certain means of relief, two to six ounces of blood being drawn from a child of five years. A full and bounding pulse requires nitroglycerine; threatened convulsions demand bromides and chloral by enema. The patient should be confined to bed as long as there is a trace of albumin in the urine, unless chronic nephritis is seen to have developed. The post-nephritic anemia calls for iron, preferably Basham's mixture.—*Medical News*.

THE INFLUENCE OF THE DIGESTIVE PROCESS UPON THE REACTION OF THE URINE.

It having been affirmed that in cases of hyperchlorhydria the acidity of the urine was increased, the author has investigated this question with the view of showing that it is erroneous to regard the urine as hyper-acid in such cases.

The results obtained show that in cases of excessive acidity of the stomach the normal rule is followed, that, viz., which establishes a relationship between the acidity of the stomach and that of the urine, the acidity of the two varying inversely. In other words, when the acidity of the stomach is greatest, as after a full meal, that of the urine is least, and *vice versa*. This relation holds in cases of hyperchlorhydria as in all others.

In the discussion which followed, attention was called to the fact of the frequent high specific gravity of the urine in cases of dyspepsia. These high gravities, though often thought to be due to the presence of sugar in some form, are, as a matter of fact, not connected with its presence, but they may end by the development of saccharine diabetes. Such conditions of the urine are not infrequently met with in those who habitually eat and drink more than the needs of the economy justify.—*The Post Graduate*.

SURGERY.

IN CHARGE OF

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THE SELECTION AND STERILIZATION OF MURIATE OF COCAINE FOR SPINAL ANAESTHESIA.

W. C. Riley, San Francisco, states that, in choosing a muriate of cocaine, one should select that occurring in anhydrous, well-defined, rather large, colourless and nearly odourless crystals. Each original package, after the crystals have been reduced in a mortar to a moderately fine powder, should be subjected at least to a very elementary test for the detection of isotropyl-cocaine, the most deleterious of all constituents the cocaine is liable to have, because it is a very active cardiac depressant. The method of sterilization advocated is as follows: Carefully selected muriate of cocaine is broken in a mortar into moderately fine fragments and heated in a dry sterilizer to 110° C. for about twenty minutes and then bottled in a clean, dry bottle with a tightly fitting rubber stopper. This insures a dry salt to begin with, which is essential for the after process. Small graduated vials or glass tubes are taken and carefully cleansed, dried and flamed, and when cool, such an amount of the cocaine is weighed off into each as will make, when the vials are filled to a mark with sterilized water, a 2 per cent. solution. The mouth of the tube is then closely stoppered with a plug of dry, sterilized absorbent cotton. It is then placed in a dry sterilizer and the temperature gradually raised to from 145° to 150° C. and maintained at that temperature for from ten to sixty minutes. After cooling, the vials may be taken out at one's leisure and the cotton plugs replaced by sterilized rubber stoppers or ordinary well-fitting corks, which have been plunged in a wax resin mixture heated to 170° C., or the end of the tubes softened in the flame, drawn out and sealed. This method insures perfect sterility, the product lasts indefinitely, there is no need to weigh or measure the cocaine or water at the time of operation and the preparation is absolutely efficient. —*N. Y. Med. Rec.*

**THE SUTURE OF WOUNDS OF LARGE BLOOD VESSELS,
WITH REPORT OF CASE OF RECOVERY AFTER
SUTURE OF A WOUND OF THE AXILLARY ARTERY.**

A. E. Halstead, Chicago (*N. Y. Med. Rec.*, July 20, 1901), while freeing the axillary artery which was adherent by its fascia to a cancerous tumour which he was removing, accidentally cut the artery obliquely through about two-thirds of its circumference. The violent hemorrhage was controlled by placing the index finger under the artery and pressing it up against the clavicle. During a previous operation all the branches of the axillary artery excepting the circumflex had been cut, leaving practically no chance for collateral circulation being established, so that suture of the artery presented the only chance of saving the arm. Four interrupted catgut sutures were passed through the two outer coats of the vessel and tied. This effectually closed the wound in the vessel, so that no hemorrhage followed removal of pressure from the artery. The radial pulse was immediately restored, and was as full as that of the other side. Two months after the operation there was still a radical pulse on the left side of a volume equal to that on the side not operated upon. After briefly reviewing the work which has been done heretofore, the following indications for arterial suture are given: In all cases of injury to a vessel or vessels, where a ligature might bring about serious nutritional changes to the part supplied by the injured vessel. This is especially apt to occur where the corresponding vein is injured at the same time. An effort should be made to restore both vessels. In all wounds of large vessels produced by puncture, gunshot or laceration, or in operation wounds of large vessels, accidental or intentional, as when a part of the vessel must be sacrificed, suture may be indicated. If the wound involves only one-half the circumference of the vessel, either oblique or transverse, simple suture is only required. If more than half of the circumference is involved resection and end-to-end union will constitute the best method of treatment. In the medium-sized and small vessels, suture is not indicated, for there is no danger of a necrosis if the vessel is ligated. The flow of blood may be temporarily controlled by elastic constriction, digital compression, temporary ligation, and pressure by properly protected hemostatic forceps. Temporary control of the circulation may be secured by passing a loop of tape around the vessel and twisting it until the lumen of the vessel is closed, and then holding the tape by means of an artery forceps, ap-

plied close to the vessel. In this way the vessel wall is not injured, the ligature can be quickly removed after the suture is completed, and the hands of an assistant are excluded from the field of operation. After suture of any large vessel the operation wound should be closed by buried sutures of catgut without drainage. The accurate coaptation of the edges of the wound will materially support the injured vessel and act as a safeguard against hemorrhage.—*St. Louis Medical Review*.

COMPRESSES OF SODIUM BICARBONATE IN SUPPURATIONS.

M. Wladimirov (*Gazette des hospitaux ; Revue medicale*, June 19) says that, in burns, compresses of sodium bicarbonate rapidly arrest suppuration and promote cicatrization even in cases rebellious to all other treatment. Moreover, this dressing gives excellent results in wounds which heal rapidly without suppuration, by causing the resulting scar to be almost inappreciable. In abscess and panaritium the results are equally satisfactory. Compresses may be applied as moist dressings, either renewed every day, or by moistening *in situ* twice or thrice daily or again by placing between the compress and the outer covering a compress covered with boric vaseline to prevent evaporation ; in this last case the dressing may be left in place for two days. The principal advantages of this dressing are its absolute innocuousness and its analgetic and antiseptic action, which render it invaluable in practice with children.—*N. Y. Med. Jour.*

SKIN-GRAFTING UNDER LOCAL ANAESTHESIA.

Gaston Torrance, in the *Philadelphia Medical Journal* of July 13, 1901, describes a method of skin-grafting which is carried out without the use of a general anaesthetic. Local anaesthesia is accomplished by a spray of ethyl chloride. A number of cases are reported, one of which was a man 30 years of age, with a severe burn which involved the whole circumference of the arm. The involved area was thoroughly cleansed, and at the same time the thigh was washed and sterilized and then washed with alcohol and ether to remove grease. An area, one and a quarter inches in diameter, was anaesthetized with the spray, and from it a section of skin was removed with a razor, and immediately applied to the arm. As the frozen

graft was applied to the granulating surface it immediately thawed and closely adhered to the surface. In doing the grafting a portion of the corium is removed with the epidermis. The method is advised because it is painless; it admits of several grafts being applied at one time, and avoids a general anaesthetic.—*Medicine.*

LUMBAR PUNCTURE IN THE DIAGNOSIS OF CRANIAL FRACTURE.

M. Tuffier, before the Société de Chirurgie (*La Presse Médicale*, Aug. 3, 1901), reported three cases of grave traumatism of the head in which it was difficult to determine the exact nature of the lesions. In all of them he made a lumbar puncture for the purpose of obtaining the cerebro-spinal fluid, hoping that it might throw some light upon the nature of the cerebral trouble. In two of the cases the fluid was red, due to admixture with blood. From this he concluded that two of the cases had sustained a fracture of the cranium. This diagnosis was confirmed by the death of both patients. The third patient, a woman 62 years of age, whose cerebro-spinal fluid was clear, made an excellent recovery. The results in these cases confirm the belief that lumbar puncture is of value in diagnosis of cranial traumatism; by it we may be able to diagnose fracture, and to some extent predicate the severity of the lesion by the colour of the fluid. There is a possibility that this procedure may also be of value in therapeutics of head injuries, by subtracting a certain amount of the fluid from the sub-arachnoid space and thus lessening intra-cranial pressure. *Medicine.*

THE USE OF ASEPTIC ADHESIVE STRIPS IN THE CLOSURE OF WOUNDS.

Thos. I. Motter, M. D., of Chicago, says: My attention was first called to this method of wound closure by an article by Lilienthal, of New York, who had been using it extensively in his hospital work. The advantages which are offered to the surgeon by such a method, if it can be made to meet the demands of asepsis and strength, are many, the two most prominent being the lessening of wound infection from sutures and the diminishing of the amount of scarring. We all know the great danger of infecting an otherwise clean wound by means of the skin sutures, the sutures themselves acting as a means of ingress to the bacteria, and again by passing through an

infected layer of skin which the antiseptic methods of to-day have as yet been unable to reach and render aseptic. This last fact has been so clearly demonstrated that it is only a wonder we do not more often have infection from this means than we really do.

The second advantage to be derived—the lessening of the scarring—is one of almost as great interest as the first. How often we see the results of an operation on the neck, face or hands of a patient, indelibly stamped there by the suture marks. A scar which, if it were a simple line, would not be half so noticeable, is made prominent by the peculiar markings of the stitches that were used. To be able to avoid such a scar would not only be pleasing to the patient but equally so to the surgeon. By this method such results are possible. There are many other points of advantage of less weight—as the doing away with removal of sutures—a source of no small dread to many patients; the avoidance of nerve impingement; the ease and rapidity of applying and the ability to reapply at future dressings when no general anaesthetic is used. Again, in wounds of the face and hands it renders a great help to the surgeon—as by its use he can thoroughly and evenly approximate the tissue without the use of sutures, a great relief to the patient.

The use of adhesive plaster in this manner has been tried before the present time, but as many times abandoned from its uncleanly nature—making a most undesirable wound. Experimenting has been done in this country and Germany to make an antiseptic adhesive plaster, but up to the present time has failed, owing to the fact that the process of sterilizing the plaster destroyed its adhesive value. The work has had its reward, and to-day we have the desired plaster, both aseptic and adhesive in nature. The plaster is made under the name of “zinc oxide aseptic strips.”

I began the use of these strips cautiously, using them first to close wounds of the hands and such minor work. The results there led me to try them in my major work. The first major case I used them on was a unilateral pyosalpinx, which was removed by an abdominal incision. The usual procedure of closure of peritoneum and muscle fascia by catgut was followed, then we had a gaping skin wound an inch in width. This was held together by an assistant, after the surrounding skin surface had been thoroughly dried, and the strips, one-quarter inch in width, applied across the wound at right angles to the incision. The result was perfect—healing by first intention and a

scar you could hardly notice. This result led to my adopting it in general surgery wherever possible. I used it in various laparotomies and in appendectomy—in amputations and hernia operations—with all like pleasing results. The cases were all clean and remained so.

When once applied properly it will hold against a great deal of tension, as I fully demonstrated in a case where stretching of the sciatic nerve was done for sciatica. The incision was over the gluteal fold, and when we came to close it we found much tension to overcome. The strips were applied while the wound was held firmly approximated and by careful application the wound was held securely together.

Where drainage is needed they can as readily be used—allowing the gauze or drainage material sufficient room at the lower margin of the wound. This procedure, in a case of appendicitis where a good deal of oozing was present, worked very satisfactorily. The drainage was removed on the third day and the opening approximated by a strip of the zinc oxide plaster.

There were a few points of value gained by experience. My usual procedure was, after the deeper tissues had been united by sutures, then the external surface was thoroughly dried. For this I used alcohol on a sponge. I found better approximation could be made by 1-4 inch strips, applying them about the same distance apart, than with wider strips. This gave a view of the wound at any time. In case one should want to be removed to be applied a little closer it was much easier and not so liable to disturb the rest of the wound as when using the broader strips.

After applying the strips the usual dry dressing of iodoform, aristol or boric acid was applied and the usual pad and dressings followed. In applying the first strip an assistant holds the tissues well together, and applying one end of the strip to the skin surface, the other is carried across the incision, being held tight and applied to the skin surface on that side of the wound. It is best to apply the centre strip first and work toward either end of your wound. Should any of the strips be put on too loose the first time one end can be readily raised and drawn more snug and again applied. These strips were left on from seven to fourteen days. In case you should have reason to examine the wound you can readily do so by removing the pad and dressings and even further by lifting one end of a strip so as to expose the wound beneath.

Not the least trouble was experienced in removing the strips. The best method is to loosen both ends and

gently free them just to the margin of the wound, then taking them both together they can be freed from the wound itself with no danger of pulling it open. In case the strips should stick, a little peroxide of hydrogen applied to them will cause them to be readily and easily removed. My own results have been so satisfactory that I feel free in urging others to try this method—feeling sure they will be gratified by the results obtained.—*Pacific Med. Jour.*

WHAT IS TRUE CONSERVATISM IN THE TREATMENT OF APPENDICITIS ?

By Dr. Miles F. Porter.—The author in two columns gives the result of (1) timely operation, and (2) of conservative treatment, or operation only when other treatment fails. The immediate mortality of prompt operation is less than two per cent.; the danger of hernia, nil; the danger of bowel obstruction slight; danger of recurrence, none; danger of secondary abscess, none. The immediate mortality of the conservative method is more than ten per cent. of operated cases and more than two per cent. of all cases. The danger of hernia is considerable. The danger of bowel obstruction is real. The danger of recurrence—thirty-three and a third per cent. of cases not operated upon and more than two per cent. of cases treated by incision and drainage. Secondary abscess is not infrequent. The author concludes that timely diagnosis and early operation is the truly conservative treatment of appendicular inflammation.

OBSTRUCTIVE DISEASES OF THE LOWER BOWEL.

By Dr. Henry O. Marcy.—In an interesting article the author considers: (1) The conditions extraneous to the bowel; (2) the obstruction caused by its contents; and (3) the pathological conditions belonging to the viscus itself. He regards the resection of the lower bowel for cancer by approaching it from above in many instances as a very great advance in modern technics. The lymphatic glands of the pelvis can be examined and removed if necessary as by no other route. The resection may be made much more accurately, and in many instances the function of the lower bowel preserved or restored. Cancer of the rectum is one of the most deplorable of all diseases. The last decade has, however, added greatly to the improved surgical methods for its relief and cure, but no field in surgery demands greater improvement in skill and technics or promises greater triumph in the relief of suffering.—*Boston Med. and Surg. Jour. and N. Y. Med. Jour.*

OBSTETRICS.

IN CHARGE OF

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ECLAMPSIA.

Prof. Stroganoff reports 58 cases of eclampsia without a death. He considers it an acute infectious disease, whose duration is from 24 to 48 hours. He advocates morphia, .015 grms.; gr. $\frac{3}{10}$ given after the attacks hypodermically. Bromid. Sod. gr. 15 to 40 and chloral hydrat., gr. 22 1-2 to 37 1-2 per os or per rectum, chloroform to be avoided as being toxic. The use of oxygen, avoidance of all irritation, and rapid delivery by the natural route without any dangerous proceedings.

PUERPERAL SEPSIS — ITS PATHOLOGY AND TREATMENT.

Puerperal sepsis in nearly all cases is due to germs introduced from without. Auto-infection is very rare, though it is possible if there are latent gonococci in the cervical glands. It also occurs in women with a pus focus in the adnexa. Such a lesion usually causes sterility of early abortion. From the latest reliable source we can say that puerperal sepsis is caused by streptococci and staphylococci, and usually accompanied by other germs, especially saprophytic. The lesions are produced by the quick penetration of the uterine tissue by the pathogenic germs, where by way of the lymphatics they are carried to the venous sinuses and lymphatics of the pelvis, thus entering the general circulatory and lymphatic system. Septic infarcts result in septic pneumonia, septic endocarditis, acute nephritis and general suppurative peritonitis. Local results are ovarian abscess and pyosalpinx. From these results we classify puerperal sepsis into septic thrombotic and pelvic lymphangitis. The thrombotic is the most rapidly fatal. The severity depends upon the virulence of the germs, the extent of traumatism, the patient's general condition and the area of endometrium invaded. As puerperal sepsis is rapidly fatal, and when recovery takes place leaves lasting lesions to pelvic organs, early and accurate diagnosis is important. Microscopical and bacteriological examination of the uterine lochia obtained by Doederlein's tube is the only certain way of differentiating between septic and putrid infection.

Treatment.—The ordinary methods are condemned. Repeated uterine irrigations do harm. Curettage gives

20 per cent. mortality. Serum therapy gives 33 per cent. mortality. Since 1894 the author has used the following technique with the idea of checking local infection, combatting general septicemia and preventing pelvic suppuration. The uterus is first thoroughly curetted, irrigated with many quarts of hot normal salt solution until all debris is removed. It is then packed with a 5 per cent. iodoform gauze. Douglas' cul-de-sac is then opened by a broad incision. The adhesions are then broken up and the cavity wiped dry. It is then packed with Mikulicz's pelvic dressing of iodoform gauze, which must completely fill the pelvis to the brim, except in front of the uterus. The iodoform is soon broken up and absorbed, appearing in the urine in two to five hours. Its absorption must be antagonistic to general sepsis. Locally the germs are destroyed very soon. Intravenous infusion of normal salt solution is used if the pulse is 120 or over, or if there are cardiac or kidney lesions. After operation colon enemata of normal salt solution are used every three hours, which eliminates toxins and iodine. The essence of the treatment is local and general iodism and elimination by the kidneys. Rapid abdominal hysterectomy is the thing to do in the case of thrombosis.—*Orth. Surg.*

SLIGHT FEVER IN THE PUERPERIUM.

Franz holds that slight rises of temperature during the puerperium are usually due to saprophytes, which cause such fever only when the lochial discharge is obstructed. They are probably the saprophytes normally present in the vagina. Internal examinations aid their action only by causing local injury of the vaginal wall, thus furnishing a point of entrance. Primiparae are much more subject to such febrile reactions than multiparae.—*Amer. Jour. Obstet.*

STERILIZATION OF THE HANDS AND PUERPERAL MORBIDITY.

Statistics presented by Sticher, and including 1,200 cases examined and delivered with sterilized rubber gloves and the same number without gloves, show a practically negligible difference in puerperal morbidity in favour of those handled with gloves. Having, in this group of cases, eliminated as far as possible infection by the examining hand, Sticher concludes that the genital canal is frequently the source of infection. For this reason he advocates a combination of asepsis of the hands and antisepsis of the genitals.—*Amer. Jour. Obstet.*

SYMPHYSIOTOMY AS CONTRASTED WITH SECTION.

Dr. Charles Jewett, of New York, read a paper lately on the above subject, in which he arrives at the following conclusions:

1. Symphysiotomy is still a useful operation within a very limited range of pelvic contraction.

2. It is suited to conditions in which only very little additional pelvic space is required for delivery.

3. It is a valuable recourse, therefore, in cases in which forceps unexpectedly proves inadequate.

4. Axis-traction forceps, with the aid of posture, should always be tried before resort to symphysiotomy.

5. Its results would be much improved by restricting it to pelves with a conjugate of not less than 7.5 cm., three inches.

6. Under equally favourable conditions its total mortality should be no greater than that of Caesarean section.

7. When the pelvic space permits, it should replace Caesarean section in the presence of exhaustion.

8. It may be elected primarily as an alternative of Caesarean section, when the operator can be assured that the degree of obstruction is well within its safe limit. Here the choice of operation is largely a matter of individual preference.

9. Within its proper field symphysiotomy is better than Caesarean section for an operator of little experience in abdominal surgery.

DIFFERENTIAL DIAGNOSIS OF INFLUENZA AND PUERPERAL INFECTION.

M. Stolz bases the differential diagnosis chiefly upon the frequency of relapse in influenza, and upon the relative slowness of the pulse except with serious pulmonary complications, it usually running between 100 and 120.—*Amer. Jour. of Obstet.*

DOUCHING DURING LABOUR AND THE PUERPERIUM.

R. Bretschneider gives the statistics of 2,280 women, 1,154 of whom received douches and 1,126 only disinfection of the external genitals. The figures given show a difference in favour of the latter class. Only one of each class died of sepsis, so the percentages are calculated upon the relation of one to the number included in each class. *Amer. Jour. of Obstet.*

Therapeutic Notes.

TO PREVENT SORE NIPPLES.

R Tincturae benzoini compositi..... f. 3 ss
 Olei olivae..... f. 3 ij
 Lanolin..... f. 3 vi

M. S.: To be applied after nursing, three or four times
 a day.—*Four. Amer. Med. Assoc.*

FISSURES OF THE NIPPLES.

R Iodoformi..... gr. x
 Unguenti zinci oxidi..... 3 ss
 Ichthyol..... f. 3 j
 Lanolin.....
 Glycerini.....āā f. 3 iss
 Olei olivae..... f. 3 iiss

M. S.: Apply night and morning.—B. C. Hirst,
Four. Amer. Med. Assoc.

DYSPEPSIA WITH SOUR ERUCTION.

R Bismuth subnitrate..... 5 iv
 Mucil. acaciæ..... 3 j
 Sodii bicarb..... 3 iv
 Infusi calumbas.....q. s. ad 3 viij

M. Sig. :—Shake—tablespoonful after meals.

ERUCTION OF GAS.

R Pesin (scales)..... gr. iij
 Bismuth subnit..... gr. x
 Strychnia sulph..... gr. 100
 Thymol..... gr. 1

M. ft. chart. No. i. Sig. :—After each meal.

GASTRALGIA.

R Codeinæ sulph..... gr. iv.
 Antipyrini..... gr. xl
 Tr. belladonnæ..... m xl
 Elix. simplex..... 3 iij
 Aqua menthæ pip.....q. s. ad 3 iv

M. Sig. :—Teaspoonful every three or four hours until
 relieved.

ADMINISTRATION OF CREOSOTE IN WINE.

R Creosoti.....	℥ xxv
Tr. gentianæ.....	℥ ss
Spts. vini rectificati.....	℥ vj
Vini xerici.....	℥ vj

M. Sig. :—Tablespoonful.....t. i. d.

COUGH MIXTURE IN PHTHISIS.

R Codeinæ.....	gr. iv
Acidi hydrochlor.....	℥ xxx
Spts. chloroformi.....	℥ iss
Syr. limonis.....	℥ j
Aqua dest.....	ad ℥ iv

M. Sig. :—One teaspoonful as needed.—*Morrell.*

OR

R Acidi hydrocyanici dil.,	
Tr. belladonnæ.....	aa xxxiv
Ext. opii. liquidi.....	℥ iv
Syrupi limonis.....	℥ ss
Mucil. acaciæ.....	ad ℥ iss

M. ft. syrup. Sig. :—One teaspoonful and repeat in three hours.—*Manual of Med. Tr.*

FEVER OF PHTHISIS.

R Quinia sulph.....	gr. xxiv
Pulv. digitalis.....	gr. xij
Pulv. ipecacuanhæ.....	
Pulv. opii.....	aa gr. vj
Extract glycerrhizæ.....	q. s.

M. ft. in pill No. xxiv. Sig.—One every four hours.—*Heim, Man. of Ther.*

GASTRALGIA.

R Chloral.....	gr. iij
Sodii hyposulphat.....	gr. vj
Aq. menth. pip.....	℥ j

M. Sig.—At dose. Repeat as required by frequency of attacks, guarding against overuse of chloral.—*Riforma Medica.*

FLATULENT DYSPEPSIA.

R. Aqua chloroformi,
 Aqua distil.,
 Aqua menthæ pip.....aa ʒ ij

M. Sig. :—Teaspoonful before meals.

Jottings.

VARIOUS THERAPEUTIC HINTS.

Convulsions may be frequently cut short like magic by turning the patient on his left side. The nausea as an after-effect of chloroform or ether narcosis may be generally controlled in the same manner.

When chilly from exposure, breathe very deeply and rapidly and the increase in bodily warmth will be surprising.

Vomiting after the administration of chloroform may frequently be prevented by replacing the inhaler with a linen cloth steeped in vinegar, allowing it to remain over the face for some time.

People who have weak hearts should always have their principal meal in the middle of the day, and with as little water as possible.

Many a woman's ruin is due to the old idea that a woman can safely leave her bed on the tenth day after confinement.

Crude petroleum, poured upon a burned surface and covered loosely with cotton, will subdue the pain almost at once.

Black pins in surgical dressings are preferable because they will not rust, and can be more readily seen when they are to be removed.

Strong spirit of ammonia applied to the wounds of snake bites or rabid animals is better than any caustic. It neutralizes the virus.

Carbolic acid poisoning can be quickly cured by giving cider vinegar diluted with equal parts of water in half tumblerful doses every five or ten minutes for a few times.

In post-partum hemorrhage try tying a piece of strong webbing tightly above the knee of the patient.

To keep the hand soft after using plaster of Paris, carbolic acid, etc., an application on going to bed of ointment composed of melted beeswax, tallow and sweet oil to the hands will soften them in one night.

Cocaine poisoning is antidoted well by strong coffee.

A daily sponge bath is necessary for the pregnant woman, in order that the skin does not become inactive and throw its work upon other organs already severely taxed, especially the kidneys.

Potassium permanganate is an efficient antidote if taken while morphine is still in the stomach. Grain for grain it will completely decompose morphine.

A typhoid fever patient will do well upon a diet of rice water.

Ice applied to the external genitals—the scrotum in men, the labia in women—is said to be the best and simplest method for controlling blood spitting and nose-bleed.

A baby may be filled up to the neck with milk and still be hungry.

In prescribing infant foods it is worth remembering that rice is an astringent and farina a laxative.

A towel dipped in boiling water, wrung out rapidly, folded to proper size, and applied to the abdomen, with a dry flannel over the hot towel, acts like magic in infantile colic. M. E. Douglass.—*Medical Record*.

Kühn says that deep injections of antipyrine into the region of the sciatic nerve promptly relieves sciatica. He uses a long needle and makes the injections at a point nearly midway between the tuberosity of the ischium and the great trochanter, and a little below a line joining these points.

A thin paste made by mixing iodoform in balsam of Peru is an excellent application to chronic indolent ulcers. Over this place a dressing of bichloride of mercury gauze.

A lotion made of one drachm of permanganate of potassium to one pint of water is very effective in counteracting the odour of sweating feet.

In incontinence of urine in children, antipyrine has proved to be useful in large doses. Take two drachms of antipyrine and dissolve it in one ounce of water and add one ounce of alcohol. Take one teaspoonful at bedtime.

Balsam of copaiba is an excellent remedy for chilblains; paint it on once a day or more.

The following is Vidal's formula for seborrhoea sicca of the scalp. Precipitated sulphur, 15 parts; castor oil, 50 parts; cocoa butter, 12 parts; balsam of Peru, 2 parts. Thoroughly mix the sulphur and castor oil, add the cocoa butter with the aid of a gentle heat, and finally the balsam. Rub into the scalp.

In barber's itch the part should be closely shaved every day and the following applied: Tannic acid, fifteen grains; milk of sulphur, one and one half drachms; oxide of zinc and starch, of each four drachms; vaseline one ounce. Apply twice daily.

According to the *Peoria Medical Monthly*, stains produced by the explosion of gunpowder may be removed by first painting the skin with a solution of biniodide of ammonium in an equal part of distilled water, then with dilute hydrochloric acid.

It is said that ringworm of the scalp will readily yield to the following: Menthol, one drachm; chloroform, four drachms; olive oil, twelve drachms.

Fissure of the nipple has been very successfully treated, by many physicians, with orthoform. A few drops of a saturated solution of orthoform in 80 per cent. alcohol is applied directly to the crack, and a dry compress is then placed above.

Wilmott Evans, after advocating the value of warm baths in pruritus, says that of all lotions those containing carbolic acid are the most efficient. He advises that 1 part of carbolic acid be dissolved in 60 parts of water, and says that if an alkali is added the sedative action is increased. He uses the following formula:

R _x Acidi carbolici liquefacti,.....	4.00
Liquoris potassæ,.....	2.00
Aquæ ad,.....	300.00
M. S. lotion; or	
R _x Acidi carbolici,.....	4.00
Sodii boratis,.....	4.00
Aquæ,.....	500.00
M. S. Lotion.	

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addressed to the Editor, Box 2174, Post Office Montreal.

Editorial.

BISHOP'S MEDICAL AND DENTAL DINNER.

The annual dinner of the graduates and undergraduates of the Medical and Dental departments of Bishop's College, Montreal, took place on the 7th of November, at the Place Viger Hotel. The room was handsomely decorated, and the attendance was large, exactly one hundred sitting down to dinner. The chair was occupied by Mr. C. M. Cass, a fourth year student, who had on his right John Hamilton, Esq., Chancellor of the University, and Dr. F. W. Campbell, Dean of the Medical Faculty, and on his left, L. H. Davidson, Esq. and Dr. Kent of the Dental Department.

The *menu* was the Place Viger's very best, and therefore left nothing to be desired. Speeches were made by the Chancellor, in response to the toast of Alma Mater, and by Dr. England and Dr. Kent in reply to the toast of "Deans and Professors." Dr. Deeks proposed the toast of "Guests," which was replied to by L. H. Davidson, Esq. With speech, song and story the evening passed most pleasantly. One of the best things of the evening was a recitation, *a la* Irving, by Mr. Cunningham, a student. The *wee* small hours came around before the meeting closed, when everyone admitted it was the most successful dinner Bishop's ever had.

CHLOROFORM VS. ETHER.

We believe that, generally among the Profession, there is a strong consensus of opinion that ether is much the safer anaesthetic, as compared to chloroform. So strong is this opinion that if the latter was administered, and death ensue, satisfactory reasons would have to be given for its being used instead of ether. No doubt such reasons can, at times, be given, but when we consider the relative mortality from the two drugs there ought to be no hesitation in coming to the conclusion that the routine anaesthetic for general surgical use should be ether. While we believe that as a general principle this is unassailable, yet we must admit to the surgeon or specialist the privilege of selecting the anaesthetic, which, under the circumstances, he considers most suitable in a given case. But, before deciding to use chloroform, he should be prepared in the event of untoward symptoms of death, to justify his choice. In the choice of an anaesthetic, it ought always to be kept in mind that chloroform is at least seven times a more powerful nerve poison than ether, and, as a result, the margin of safety is correspondingly reduced. It is a striking fact how other figures in relation to the two drugs bear out this pretension. Estimating roughly, it is said we may use as many ounces of ether for a given length of anaesthesia as we do drams of chloroform. The percentage mortality of the two drugs is very instructive. Combining the statistics collected by Drs. Julliard and Ormsby, we find that ether, roughly speaking, is five times as safe as chloroform.

Anaesthetic.	Total number of Administrations.	Total Number of Deaths.	Death Rate.
Chloroform.	676,767	214	1 in 3,162
Ether.	407,553	25	1 in 16,302

We have made the above remarks because we have recently seen a paper by Dr. Frazier, of Louisville, Kentucky, in which he advises the use of chloroform as a general anaesthetic, and states that his views are endorsed by many of his confreres in that town.

Personals.

Dr. William Bayard, of St. John, N. B., completed his eighty-seventh birthday on the 21st of August last. He is hale, hearty and as clear intellectually to-day as he was in his younger days; and then he was one of the brightest intellects in the Canadian profession. For years he was a regular attendant at the meetings of the Canadian Medical Association. He is still following his professional work.

Dr. Sharp (M. D., McGill, 1885) has been appointed Lecturer on Diseases of Children, in the Medical Faculty of Bishop's College.

Dr. F. E. Thompson (M. D., McGill, 1890) has been appointed an instructor in obstetrics in the Medical Faculty of Bishop's College.

Dr. J. A. Gillespie (M. D., Bishop's, 1901), who has been House Surgeon of the Western Hospital since May last, has resigned, to enter upon practice at Cumberland, Vancouver, British Columbia.

Dr. E. A. Tomkins (M. D., Bishop's, 1901) has commenced practice in Richmond, Q., as successor to Dr. McMorine, who died suddenly on the 4th of September last.

Book Reviews.

Diseases of Ear, Nose and Throat. By Charles H. Burnett, A. M., M. D., Philadelphia; E. Fletcher Ingals, A. M., M. D., Chicago; James E. Newcomb, A. B., M. D., New York city; J. B. Lippincott & Co., Philadelphia and London, 1901. Canadian Agent: Charles Roberts, 1524 Ontario Street, Montreal. Numerous illustrations.

The pleasure of reviewing so excellent a volume as the above is not often afforded us. The work is divided into three parts, each written by a practical teacher especially familiar with the subject which he treats. The Anatomy and Physiology of the ear, nose and throat stands as a prominent feature in this work, which few will deny the necessity for, before proceeding to treatment.

The review in this department is very complete and is in accordance with the latest discoveries in these special fields of investigation. As regards treatment, the methods of medication and surgery are claimed to be the latest, and accepted generally as best by many leading laryngologists. The illustrations and coloured plates are very good, the type clear and binding substantial. Altogether, the volume is high class, and we highly recommend it to all as an excellent work of reference.

G. T. R.

Manual of the Diseases of the Eye for Students and General Practitioners, with 275 Original Illustrations, including 36 coloured figures. By Charles H. May, M. D., Chief of Clinic and Instructor in Ophthalmology, Eye Department, College of Physicians and Surgeons, Medical Department, Columbia University, New York. Second Edition, Revised, New York, William Wood & Company, 1901.

The fact that a second edition of the book has been called for in less than a year from the date of its first appearance in print is ample proof that students of ophthalmology have found Dr. May's Manual of especial value among works of its kind. As the new edition follows so closely on the old the text has not been altered to any great extent, but numerous coloured plates have been added, which increase the book's usefulness not a little. On account of its practical, terse treatment of the subject, its clear print, copious illustrations, small volume, and what appeals strongly to medical students, its low price, we can hardly recommend the book too highly.

G. W. M.

Atlas and Principles of Bacteriology and Text-Book of Special Bacteriologic diagnosis. By Prof. Dr. K. B. Lehmann and R. O. Neumann, Dr. Phil. and Med. Wurzburg, translated from the second edition and edited by George H. Weaver, M.D., Rush Medical College, Chicago. Published by W. B. Saunders & Co., 1901. J. A. Carveth & Co., Toronto, Canadian agents.

The first volume or atlas contains 69 plates with 632 figures, and a page of letter-press descriptive of each plate. The plates depict 96 micro-organisms under various conditions of growth, and in the different media as well as the microscopic appearance of them. This gives merely the scope of the book, but conveys no idea of the truth and beauty with which the work is executed. The first plate, for example, contains eleven figures, giving the appearance of streptococcus pyogenes in agar and gelatine tube and plate growth at different periods and various temperatures. Cover slips are also depicted. The same is done for nearly a hundred

organisms, so that the plates cover practically the whole field. One is at a loss which to admire most, the skilful drawing and colouring or the fidelity with which they are engraved and transferred on stone. The book is as useful as it is beautiful. The illustrations illustrate and the descriptions describe. The execution represents the very best that has been done in medical book-making. The work is in two volumes. The price of the set is \$5.00.

A. M.

The Principles and Practice of Medicine designed for the use of Practitioners and Students of Medicine.

By William Osler, M. D., Fellow of the Royal College of Physicians, London; Professor of Medicine in the Johns Hopkins University, etc., etc., etc. New York: D. Appleton & Co., 1901.

The 1901 edition of Osler's Practice of Medicine is to hand and does credit to its distinguished author, and also its publishers, D. Appleton & Co.

A text-book, however, which is so eminently a student's manual, and consequently much in use, ought to have a better binding; otherwise the publishers have done their work well.

In regard to its contents. At a time when medical authors are so numerous and voluminous, a work requires no small merit to commend it to the medical profession. The circulation of this text-book is now so universal and so large that its merits cannot be gainsaid.

Modern Medicine has progressed very rapidly, and a number of diseases discussed in the former edition needed re-writing. This he has done, bringing the knowledge concerning them well up to date.

I know of no other text-book which comprises so much systematic medical information in as scientific, succinct and condensed a form as Osler. The pathological anatomy is very detailed and exhaustive, and statistics though often misleading abound.

Though we are often disappointed that the discussions on the management and therapeutical treatment of certain affections are so meagre and curtailed, yet nowadays there seems to be a tendency to think that the all-important object of the medical practitioner is to diagnose his case, and then, with suitable hygienic surroundings leave the rest to the *vis medicatrix nature*.

Some of us feel, however, that the comfort and well-being of the patient are the prime considerations, and that the discussions in the management and drug treatment should be more suggestive and detailed.

In this respect Osler does not do himself justice, though better than many modern writers.

To nervous diseases he only devotes 247 in a text-book of 1,150 pages. This is insufficient. To discuss the diseases of the

nervous system as exhaustively as those of the other systems would require twice the space allotted to them. The excuse may be that because of their chronicity and in some instances comparative verity, too much space should not be given.

One of the most important things for the student to be able to do is to diagnose a functional from an organic disease, important both as to prognosis and treatment. The functional stigmata are not as exhaustively treated as they deserve, or as we feel the author is capable of doing in this connection.

Taken altogether, the text-book has no superior, and few equals as to its readability, condensed amount of information and its systematic, scientific methods of dealing with the etiology, pathology and symptomatology of morbid conditions.

W. E. D.

PUBLISHERS DEPARTMENT.

THE VAN NESS COOPER CO.

This Company, of New York city, opened a branch in Montreal about a year ago, since which time the various preparations which are prepared in their laboratory has been brought to the notice of the profession. These are numerous and are only introduced through advertising in Medical journals. We have heard their Lacto-Lithiated Strontium highly spoken of in Bright's Disease. Their Nitro-Glycerine solution, a non-alcoholic combination of Bi-Chl. of Mercury, Hydrocyanic Acid Dilute, Crude Pyroligneous Acid, Tuligo Ligni, Gynocardia Odorata and Glycerine is said to be of especial value in that obstinate disease, eczema. They make a preparation of Bone Marrow, which is pleasant to take and which we have used in wasting disease with much benefit. Catalogues of their specialties will be sent on application to their Montreal Depot, which is at 28 St. Antoine street.

LITERARY NOTES.

The National Review's important article on the Foreign Policy of England, which has set both the English and the Continental press to talking of the possibility of an understanding between England and Russia, will be reprinted without abridgment in *The Living Age* for December 14.

The Living Age for 1902. During the fifty-eight years of its existence this sterling weekly magazine has steadily maintained its high standard. It is a thoroughly satisfactory compilation of the most valuable literature of the day, and as such is unrivalled. As periodicals of all sorts continue to multiply, this magazine continues to increase in value; and it has become quite indispensable to the American reader. By its aid alone we can, with an economy of time, labour and money, otherwise impracticable, keep well abreast with the literary and scientific progress of the age, and with the work of the ablest living writers. It is the most comprehensive of magazines, and its prospectus is well worth the attention of all who are selecting their reading matter for the new year. To all new subscribers for 1902, the publishers offer FREE the *Seventeen Weekly Issues* for the four months September to December, 1901, inclusive, until the edition is exhausted. Intending subscribers should hasten to avail themselves of this generous offer. *The Living Age Co., Boston*, are the publishers.

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Canada medical record

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